Social-Emotional Predictors of Teacher Well-Being

by

Christopher Barber

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ABSTRACT

There is a paucity of research examining teachers' emotional experiences within the classroom and whether these experiences relate to their health. Using a novel approach to measuring emotion that considered a broad range and frequency of teachers' positive and negative emotional experiences, the objective of the present study was to examine how teachers' emotions relate to their perceptions of collegial social support and mental health. Survey data from 60 teachers in an Atlantic Canadian province were collected. Results indicated that teachers' emotional load was not related to perceptions of social support. Additionally, there was no relation between negative emotional load and mental health, and positive emotional load was not found to moderate this relation. These findings suggest that teachers' emotional experiences within the classroom context may not be as much of a burden on their mental health as previously anticipated, and that workplace or personal factors outside of the classroom could better linearly predict teachers' low levels of self-reported mental health. Implications for further research are discussed.

CHAPTER ONE

Literature Review

Introduction

Although historically seen as one of the most stressful occupations internationally, teachers continue to face an increased amount of stress from various sociopolitical, systemic, and classroom-specific sources (Grayson & Alvarez, 2008, Greenberg, Brown, & Abenavoli, 2016). Consistent exposure to these stressors over an extended period of time leaves teachers at a high risk for burnout, which can be characterized by emotional and physical exhaustion (e.g., fatigue, sleep deprivation, changes in appetite, irritable mood), depersonalization (e.g., negative feelings/emotions towards others, social withdrawal), and reduced feelings of personal accomplishment (Maslach, Jackson, & Leiter, 1996; Pines & Aronson, 1988). Previous research on teacher stress and burnout has shown that the effects have a profound influence on not just the teachers themselves, but that they also extend to the classroom and economic environments as a whole (Ghanizadeh & Jahedizadeh, 2015).

Due in large part to the symptoms of teacher stress and burnout noted above, teachers face some of the highest attrition rates among all professions, especially for those beginning their work in the field. For example, in the United States, it has been estimated that as many as 25% of teachers leave the profession within their first three years and almost 40% leave within the first five years (Darling-Hammond, 2001; Ingersoll, 2003; Ingersoll & Smith, 2003; Smith & Ingersoll, 2004). These rates of attrition do not appear to be a localized problem, as similarly concerning numbers have been reported internationally in countries such as Australia (Stoel & Thant, 2002), Canada (Kutsyuruba, Godden, & Tregunna, 2013), China (Liu & Onwuegbuzie, 2012), Sweden (Lindqvist, Nordänger, & Carlsson, 2014), and the United Kingdom (Smithers &

Robinson, 2003) These rates prove to be extremely costly for the economy, as evidenced by an American report which found that teacher attrition is estimated to cost the United States approximately 2.2 billion dollars annually through costs associated with initial training, recruitment, hiring, and professional development. (Alliance for Excellent Education, 2005). Although reported attrition rates suggest that the majority of teachers do not decide to leave the profession, those who experience high levels of stress and/or burnout still likely have a negative effect on the economy as well, as it has been found that individuals working in an environment with increased emotional and cognitive demands are more likely to access sick leaves and disability pension (Sundstrup et al., 2018). Whereas researchers have recently made gains in understanding the negative effects that teacher stress, burnout, and, to a greater extent, attrition have on the economy, they are also beginning to further understand the negative consequences that they have in the classroom context.

Negative Effects of Teacher Burnout

Previous research on the negative effects associated with teacher burnout show that it can be detrimental not only at an individual and classroom level, but also at a systemic level. This commonly happens through two different means, one being through teacher burnout and stress in the classroom and the other being through the problems associated with attrition in general. One example of the effects of attrition comes from a process described by Karensti and Collin (2013). As attrition rates increase, so too does the need for new teachers to replace the empty jobs. This turnover of professionals makes it very difficult for a school to establish a consistent and cohesive work atmosphere, which is important not only for individual teacher well-being, but also for student success. Further complicating this, however, is the fact that attrition usually involves inexperienced teachers who have yet to master the professional skills needed for

successful teaching. Because these teachers leave without mastering their skills, this results in an influx of more inexperienced teachers left to fill that void, thus creating a revolving door of inconsistency that negatively affects the academic atmosphere for students. Research in this area supports the ideas behind this process. For example, in their long-term study of more than 850,000 New York City 4th and 5th graders, Ronfeldt, Loeb, & Wyckoff (2013) used fixed-effects models to estimate the effects of teacher turnover on English language arts (ELA) and math scores. They found that those students in grade levels with higher rates of teacher attrition tend to obtain lower ELA (β = -0.049, SE = 0.011) and math (β = -.082, SE = 0.01) scores, even after accounting for various other student (e.g., gender/sex, ethnicity, SES, attendance), classroom (e.g., class size, ethnicity, socioeconomic status, attendance), and school (e.g., enrollment, ethnicity, socioeconomic status) factors. These effects were especially apparent in generally lower-achieving schools with higher populations of minorities. In addition to this, another study of 1,544 students, 154 teachers, and 53 low performing, high poverty schools in the U.S. found that years of teaching experience for a specific grade was associated with student reading achievement (Huang & Moon, 2009). Value added models used for this study showed that teachers with five or more years of experience of teaching a specific grade had a significant positive effect on their students' scores on a standardized, state mandated reading test (R^2 = 0.27). Although this effect size appears relatively small, the authors explain that these results only reflect one school year and that if these effects are similar across grades, then students with seasoned teachers for four years in a row may end up scoring more than one standard deviation higher than students with consistently inexperienced teachers.

Further adding to the problems associated with attrition, other research suggests that those teachers who end up leaving the profession due to stress and burnout likely had a negative

effect on the classroom even before their departure. For example, in their survey-based study of 90 Head Start teachers, Li-Grining et al. (2010) found that those who reported more personal stressors were less likely to use effective strategies for classroom behaviour management (B = -0.45, R^2 = 0.14, SE = 0.16) and had fewer positive social interactions (e.g., supervision, discipline, and staff-child interactions; B = -0.49, R^2 = 0.09, SE = 0.19). Another study of 65 Canadian teachers and 461 students found that teacher burnout was predictive of decreased self-reported teacher-student relationship growth (b = -0.02, SE = 0.01, ES = 0.05) over the course of a school year, as well as lower acquisition of teacher rated child literacy skills (b = -0.03, SE = 0.01, ES = 0.03) (Hoglund, Klingle, & Hosan, 2015). An additional longitudinal study also found a negative relation between depressive symptoms in teachers and the quality of the classroom learning environment, as well as the teacher's depressive symptoms and student achievement in mathematics (McLean & Connor, 2015). Not only has teacher burnout been found to affect different aspects of the classroom environment and student achievement, it has also been found to affect the physiological state of students. More specifically, Oberle and Schonert-Reichl (2016) found that through a process called stress-contagion, a teacher's burnout level, as defined by symptoms of emotional exhaustion and depersonalization, significantly predicted their students' morning stress hormone levels. Although there currently has not been any research indicting direct negative effects of stress contagion on student achievement, it is quite possible given findings from previous studies on stress hormones and student achievement (Maldonado et al., 2008; Jimerson, Durbrow, Adam, Gunnar, & Bozoky, 2006).

Due to the multiple concerns associated with teacher stress and burnout, more recent research has begun to focus on the individual predictors of burnout to better understand their specific outcomes, how they interact with each other, and how they relate to teacher and student

health and well-being. One of the essential elements of teacher burnout, as noted previously, is emotional exhaustion. Common descriptive elements of emotional exhaustion specifically include fatigue, debilitation, loss of energy, and feeling worn out (Schwarzer, Schmitz, & Tang, 2000). Studies examining the negative effects of emotional exhaustion on the classroom show similarly concerning results to those of burnout in general. For example, one large-scale assessment study of 1,102 German teachers and 22,002 students found that teachers' emotional exhaustion was negatively related to student achievement on a year-end standardized mathematics test ($\beta = -4.56$, ES = 0.13), even after controlling for teachers' years of experience, teaching certificate in mathematics, and individual student characteristics. (Klusmann, Richter, & Ludtke, 2016). Similar results come from another German study of 380 teachers and 7,899 4th graders, which found significant negative correlations between teacher emotional exhaustion and the class average of students' grades, standardized achievement test scores, school satisfaction, and perceptions of teacher support (Arens & Morin, 2016). Finally, although not related to students, one study of 200 Nigerian teachers found a positive correlation between teacher emotional exhaustion and workplace deviance, which was defined as behaviours that violate organisational norms and harm the organisation and its stakeholders (Enwereuzor, Onyishi, Onyebueke, Amazue, & Nwoke, 2017).

Positive Effects of Teacher Well-Being

Given the findings on the negative effects that teacher burnout has on the classroom, it should come as no surprise that the opposite effects have also been observed in relation to teacher well-being. Previous research examining the positive effects of teacher well-being has shown that it is an important factor in forming a healthily functioning classroom. On an individual level, teacher well-being has been found to predict teachers' job satisfaction (Collie,

Shapka, Perry, & Martin, 2016) as well as the likelihood to implement evidence-based practices in the classroom (Cooke et al., 2017). These individual effects of teacher well-being, in turn, appear to further influence students as well. For example, one study of 318 German math teachers found that those who scored higher on measures of well-being not only tended to have more motivated students, but that they were also rated more favourably by their students in areas of academic instruction such as interaction tempo, cognitive activation, and personal support (Klusmann, Kunter, Trautwein, Ludtke, & Baumert, 2008). Additional studies have found significant positive relations between teacher well-being and student performance. In their study of 115 Australian high school math teachers and 1,685 students, Collie and Martin (2017) found a significant positive relation between teacher well-being and student numeracy achievement ($\beta = 0.21$). Another large-scale study of 24,100 staff from 428 schools in the U.K found that teacher well-being was a significant predictor of student SAT scores (Briner & Dewberry, 2007)

Teacher Workplace Social Support

One important aspect of teacher well-being relates to the amount of social support that an individual perceives from both administrative and teacher-colleagues. Previous research examining the effects of social support on teachers' well-being has shown that a lack of support can predict burnout. For example, in their study of 339 U.S. teachers, Kahn, Schneider, Jenkins-Henkelman, and Moyle (2006) found that emotional social support explained a significant amount of variance in burnout ($R^2 = 0.11$). More specifically, they found that the type of social support mattered in this relation, as positive work-related social support and non-job related social support were found to negatively predict different aspects of burnout (i.e., emotional exhaustion, cynicism, and professional efficacy), while negative work-related social support and empathy social support positively predicted them. A similar study by Hoglund, Klingle, and

Hosan (2015) found that social support from colleagues was negatively related to overall burnout (b = -0.35, SE = 0.09) and emotional exhaustion specifically (b = -0.68, SE = 0.13).

Additional research in this field has found that collegial support can serve as a protective factor against the negative effects associated with burnout. For example, one study found that not only was supervisor social support a significant predictor of emotional exhaustion (β = -0.19), depersonalization (β = -0.13), and personal accomplishment (β = -0.15), but that it also acted as a moderator in the relation between job-related stress and depersonalization (β = 10.12; Russell, Altmaier, and Van Velzen, 1987). Another large-scale study of 11,840 U.S. teachers found that although both administrative (i.e., principal) and peer support were positively related to professional commitment, peer support had the largest direct effect (Singh & Billingsley, 1998). Similar results for collegial support also come from qualitative studies. For instance, Haydon, Leko, and Stevens (2018) found that teachers indicated that administrative support could be a protective factor against stress, whereas a lack of administrative support could be a source of stress. An additional study of resilient teachers found that respondents commonly cited strong administrative and peer social support as factors in dealing with job-related stress (Howard & Johnson, 2004).

Although peer support in the traditional sense tends to refer to face-to-face interactions among teachers and their coworkers, recent technology has enabled teachers to seek out further peer support via social networking platforms. A qualitative study conducted in Australia found that early career teachers often reported using Facebook to seek peer social support for several different reasons, such as during casual employment, to access collegial support from previous workplace relationships, and to deal with challenging work situations (Mercieca & Kelly, 2018). Despite providing teachers with easy and convenient access to peer support, several researchers

have noted that these platforms are really only useful for pragmatic advice and that they can have many different drawbacks such as media exploitation, limited/restricted reciprocal knowledge sharing, repetitive dialogue, and the extending of engagement in work (Bergviken Rensfeldt, Hillman, & Selwyn, 2018; Kelly & Antonio, 2016).

The Role of Emotions in the Classroom

As noted previously, two of the essential elements of teacher burnout are emotional exhaustion and depersonalization. Although theoretically treated as separate entities, one commonality between these two symptoms is the importance placed on emotion. As such, some recent research has begun to further examine teachers' positive and negative emotions to better understand their relations to teachers' mental health and the classroom context in general. In terms of the entire classroom atmosphere, one mixed-method study of 1,399 fifth and sixth grade students from the U.S. found that as the quality of emotional and social interactions in the classroom went up, so too did student achievement in ELA (Reyes, Brackett, Rivers, White, & Salovey, 2012). Regarding the limited research on school-situated emotions, Burić, Slišković, and Penezić (2019) found in their survey-based study of 941 Croatian teachers that negative emotions towards students (i.e., anger, hopelessness) were positively related to burnout (i.e., exhaustion, disengagement) and psychopathological symptoms (i.e., anxiety, depression, somatisation). These findings could be due in part to the association between emotions and regulation strategies, as one study of 189 German teachers found that the more negative emotions (i.e., anxiety, anger) that teachers experienced, the more they used maladaptive emotional regulation strategies such as faking and/or hiding their emotions (surface acting) and suppression (Lee at al., 2016). In contrast, the more teachers experienced the positive emotion enjoyment, the more likely they were to use adaptive emotional regulation strategies such as

changing the way they think about and interpret emotionally charged events (reappraisal), and by regulating their initial emotions to align with how they want to be perceived (deep acting). Research has also shown that teachers' emotions can have an effect on their behaviours. For example, in their study of 77 pre-service and in-service teachers, Levins, Bornholt, and Lennon (2005) found that teachers' negative emotions (i.e., guilt and anxiety) towards students with special needs such as ADHD, learning disabilities, and hearing impairment were predictive of their intentions to act negatively towards them. Finally, a study of 1,830 teachers in China found that emotions had an effect on an individual's teaching approach, as positive teacher emotions (i.e., joy, love) were linked to a more student-centred approach, whereas negative emotions (i.e., sadness, anger, fear) were linked to a teacher-centred approach (Chen, 2018).

Theories of Emotion

Over the years, many different theories have been developed to help us define and understand the nature of emotions. While most of these theories have historically focused on either the evolutionary, physiological, or cognitive underpinnings of emotion, more recent theorists have begun to focus more on the current social context surrounding them (Cornelius, 2000). As such, theories of emotion can be grouped into one of three main categories: evolutionary theories, psychophysiological theories, and dynamic theories (Plutchik & Kellerman, 2013).

Pioneered by Charles Darwin, evolutionary theories focus on emotions that are shared with other species, characterized by specific physiological features, and designed to overcome key adaptive problems (Al-Shawaf, Conroy-Beam, Asao, & Buss, 2016). One such evolutionary model, proposed by Robert Plutchik (1980), assumes that there are eight basic emotions in humans and animals that play major adaptive roles, and that when combined, they produce many

observable derivative states such as personality traits, behavioural or coping styles, and diagnostic syndromes and defenses. More contemporary evolutionary-psychological research aims to broaden this perspective by examining the range of adaptive problems emotions have evolved to solve, including additional human-specific emotions that lack distinctive signals, and by considering aspects of information-processing that account for individual differences (Al-Shawaf et al., 2016). For example, Cosmides and Tooby (2000; Tooby & Cosmides, 2008) propose that in order to help solve the complex adaptive problems that humans encounter, emotions have evolved to act as an orchestrator of numerous cognitive, physiological, and behavioural responses. Such responses include: perceptual mechanisms; attention; memory; goals; motivational priorities; information-gathering adaptations; categorization or imposed conceptual frameworks; specialized cognitive inference; communication and expression; learning; reflexes; mood, energy level, and effort allocation; physiology; and behaviour.

In contrast to the historical perspective characteristic of evolutionary theories, psychophysiological theories focus primarily on the physiological and cognitive processes involved in emotional experiences (Plutchik & Kellerman, 2013). Pioneering theories from this perspective include James-Lange theory, which proposed that emotions were the result of one's perceptions of bodily responses to stimuli, and the Cannon-Bard theory, which argued that subjective emotional and physiological responses occur simultaneously and independently of one another (McGaugh, 2016). While older theories from this perspective have typically studied the autonomic, somatic, and central nervous systems separately, more recent researchers have begun examining the relations among these systems as to how they relate to emotions (Larsen, Berntson, Poehlmann, Ito, & Cacioppo, 2008). For instance, Hagemann, Waldstein, and Thayer (2003) integrated results from studies using positron emission topography and functional

magnetic resonance imaging to propose a model of co-occurring central nervous system and autonomic nervous system activity during emotional responses.

Inspired by principles of Sigmund Freud's psychoanalytic theory, dynamic theories posit emotions are cultural products that can undergo a number of transformations throughout one's life span, and that these changes are largely influenced by psychological defense mechanisms (Cornelius, 2000; Plutchik & Kellerman, 2013). One such theory proposed by James Averill (2012) describes emotions as socially constituted syndromes that include both subjective (experiential) and objective (behavioural) elements. As such, emotions include an individual's cognitive appraisal of a given situation and can be interpreted as things that happen to us rather than as things that we do.

Although most theories of emotion have historically conformed to the traditions associated with one of the above schools of thought, more modern theorists and researchers have begun integrating information from various perspectives with hopes of creating one unified approach to understanding emotions.

The Broaden-and-Build Theory of Emotion

One of the more prominent contemporary theories of emotion posits that the intensity and valence of everyday emotions affect an individual's thoughts and behaviours. Fredrickson (1998) used the *broaden-and-build theory* to propose that during situations that elicit positive emotional responses, an individual's thought-action repertoire is broadened. This provides them with the ability to not only broaden their capacities for attention, thinking, and action, but also to access a wider range of personal physical, intellectual, and social resources. Conversely, situations that elicit negative emotional responses narrow an individual's capacities for attention, thinking, and action, as well as their access to physical, intellectual, and social resources.

This theory is supported by multiple studies. For example, Fredrickson and Branigan (2005) found that students who watched a positive emotion-provoking short film were found to broaden their scope of attention and thought-action repertoires, whereas students who watched a negative emotion-provoking film were found to narrow their thought-action repertoires. A separate study further found that positive emotions not only help to broaden the individual's resources, but that they also can also negate and undo the cardiovascular aftereffects that negative emotions have on the body (Fredrickson, Mancuso, Branigan, & Tugade, 2000). This study provides some promising evidence for potential health benefits of positive emotional experiences. This protective effect of positive emotions was also observed in another study examining the role of positive emotions following a strongly negative emotional experience (Fredrickson, Tugade, Waugh, & Larkin, 2003). Results from this study found that positive emotions accounted for a significant portion of the relation between pre-existing trait resilience and the later development of depressive symptoms in 46 university students following the 9/11 attacks, indicating that previously experienced positive emotions could possibly act as a buffer to the aftereffects associated with negative emotions. These findings also provided evidence that both positive and negative emotions can indeed co-occur in a given situation. For example, students with previously measured resilience documented the same negative emotions as all participants but also reported parallel positive experiences such as gratitude and perspective taking that was psychologically healthy.

Though experimental and broad survey-based studies support the *broaden-and-build theory*, there has been a lack of studies testing the utility of this theory to understand naturalistic school contexts. One such study of 941 Croatian teachers found that teachers who reported higher levels of positive emotions (i.e., joy, pride, love) also reported being more engaged in

their work, while those who reported more negative emotions (i.e., anger, fatigue, hopelessness) tended to be less engaged in their work (Burić & Macuka, 2018). Another study, which had 62 teachers record day-to-day positive and negative emotions in a daily journal, found that positive emotions elicited more adaptive reappraisal strategies, whereas negative emotions elicited both maladaptive and adaptive reappraisal strategies (Lavy & Eshet, 2018). Further, the study also found a significant positive correlation between negative emotions and burnout, as well as a significant negative association between positive emotions and burnout.

One common problem with the above studies, and emotion research more generally, is that they rely on relatively narrow measures that focus primarily on the intensity of a select few momentary negative and/or positive emotions. These measures fail to capture the broader range of both positive and negative emotions an individual can and often does experience during any given situation, as well as the frequency of these complex emotional experiences over an extended period. Given what is already known about the positive and negative effects of emotions on teachers' and students' mental health and well-being in the classroom, it is important to further understand the role that complex emotional experiences play within the classroom context. With that being said, there currently is a paucity of research examining the emotional profile of everyday experiences and how positive and negative school experiences relate to the mental health and well-being of teachers. Conducting further and more in-depth research in this area will help those involved in school-based mental health to better identify social-emotional risk and protective factors, which could further be used to develop or adapt primary, secondary, or tertiary intervention-based strategies within the school system.

CHAPTER 2

Social-Emotional Predictors of Teacher Well-Being

Historically seen as one of the most stressful occupations internationally, teachers continue to face an increased amount of stress from various sociopolitical, systemic, and classroom-specific sources (Grayson & Alvarez, 2008; Greenberg, Brown, & Abenavoli, 2016). Consistent exposure to these stressors over an extended period of time leaves teachers at a high risk for burnout, which can be characterized by emotional and physical exhaustion (e.g., fatigue, sleep deprivation, changes in appetite, irritable mood), depersonalization (e.g., negative feelings/emotions towards others, social withdrawal), and reduced feelings of personal accomplishment (Maslach, Jackson, & Leiter, 1996; Pines & Aronson, 1988). Previous research on teacher stress and burnout has shown that the effects have a profound influence on not just the teachers themselves, but that they also extend to the classroom and economic environments as a whole (Ghanizadeh & Jahedizadeh, 2015). On an individual level, increases in teacher stress and burnout have been found to be related to decreases in the quality of teachers' social interactions and relationships, as well as in their use of effective strategies for instruction and behaviour management (Li-Grining et al., 2010). These individual effects appear to further affect the classroom context and students, as increases in teachers' stress and burnout levels have been shown to be related to decreases in the quality of the classroom environment, increases in student stress hormone levels, and lower student achievement in core academic areas such as mathematics and literacy (e.g., Hoglund, Klingle, & Hosan, 2015; McLean & Connor, 2015; Oberle and Schonert-Reichl 2016). Even the individual aspects of stress and burnout can influence students. For example, increases in teacher emotional exhaustion alone has been found to be related to decreases in classroom grade averages as well as students' individual

performance on standardized achievement tests, school satisfaction, and perceptions of teacher support (Arens & Morin, 2016; Klusmann, Richter, & Ludtke, 2016). Finally, increased levels of teacher stress and burnout have also been shown to have detrimental economic effects through costs associated with teacher attrition and increased access to sick leaves and disability pension (Alliance for Excellent Education, 2005; Sundstrup et al., 2018).

Given the findings on the negative effects that teacher stress and burnout have on the classroom, it should come as no surprise that the opposite has been observed in relation to optimal levels of teacher well-being. Previous research examining the positive effects of teacher well-being has shown that it is an important factor in forming a healthily functioning classroom. On an individual level, teacher well-being has been found to predict teachers' job satisfaction as well as the likelihood of implementing evidence-based practices in the classroom (Collie, Shapka, Perry, & Martin, 2016; Cooke et al., 2017). Like the negative effects of stress and burnout, these individual effects of optimal teacher well-being also appear to relate to student outcomes. For example, one study found that teachers who scored higher on measures of well-being not only tended to have more motivated students, but that they were also rated more favourably by their students in areas of academic instruction such as interaction tempo, cognitive activation, and personal support (Klusmann, Kunter, Trautwein, Ludtke, & Baumert, 2008). Additional studies have found significant positive relations between teacher well-being and student performance in areas such as numeracy and SAT scores (Briner & Dewberry, 2007; Collie & Martin, 2017).

Due to findings from health research such as those noted above, more recent research has begun to focus on the individual predictors of teacher well-being to better understand how they interact with one another and relate to specific outcomes. For example, one well-established

aspect of teacher well-being relates to the amount of social support that an individual perceives from both administrative and teacher colleagues. Previous research examining the effects of social support on teachers' well-being has shown that a lack of support can predict burnout. For example, Kahn, Schneider, Jenkins-Henkelman, and Moyle (2006) found that positive work-related social support and non-job related social support negatively predicted different aspects of burnout (i.e., emotional exhaustion, cynicism, and professional efficacy), whereas negative work-related social support and empathy social support positively predicted them. A similar study found that as teachers' social support from colleagues increased, levels of overall burnout and emotional exhaustion specifically decreased (Hoglund, Klingle, & Hosan, 2015). Additional research in this field has found that collegial support can serve as a protective factor against the negative effects associated with burnout. For example, one study found that not only was supervisor social support a significant predictor of emotional exhaustion, depersonalization, and personal accomplishment, but that it also acted as a moderator in the relation between job-related stress and depersonalization (Russell, Altmaier, and Van Velzen, 1987). Another study found that although both administrative (i.e., principal) and peer support were positively related to professional commitment in teachers, peer support had the largest direct effect (Singh & Billingsley, 1998). Similar results for collegial support also come from qualitative studies. For instance, Haydon, Leko, and Stevens (2018) found that teachers indicated that administrative support could be a protective factor against stress, whereas a lack of administrative support could be a source of stress. An additional study on resilient teachers found that respondents commonly cited strong administrative and peer social support as factors in dealing with job-related stress (Howard & Johnson, 2004). Additional research in this field has found that collegial support can serve as a protective factor against the negative effects associated with burnout. For example,

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Another predictor of teacher well-being is emotion in general. Some recent research has begun to further examine teachers' positive and negative emotions to gain a better understanding of their relation to teachers' mental health and the classroom context in general. In terms of the entire classroom atmosphere, one study of fifth and sixth grade students found that as the quality of emotional and social interactions in the classroom went up, so too did student academic achievement in English language arts (Reyes, Brackett, Rivers, White, & Salovey, 2012). With regard to the limited research on school-situated emotions, Burić, Slišković, and Penezić (2019) found that teachers' negative emotions towards students (i.e., anger, hopelessness) were positively related to burnout (i.e., exhaustion, disengagement) and psychopathological symptoms (i.e., anxiety, depression, somatisation). These relations could be due in part to the association between emotions and regulation strategies, as one study found that teachers who reported higher levels of negative emotions (i.e., anxiety, anger) were more likely to use maladaptive emotional

regulation strategies such as suppression and surface acting, whereas teachers who reported higher levels of positive emotions (i.e., enjoyment) were more likely to use adaptive emotional regulation strategies such as reappraisal and deep acting (Lee et al., 2016). Research has also shown that teachers' emotions can have an effect on their behaviours as well. For example, Levins, Bornholt, and Lennon (2005) found that teachers' negative emotions (i.e., guilt and anxiety) towards students with special needs such as ADHD, learning disabilities, and hearing impairment were predictive of their intentions to act negatively towards them. Another study found that emotions even had an effect on an individual's teaching approach, as positive teacher emotions (i.e., joy, love) were linked to a more student-centred approach, whereas negative emotions (i.e., sadness, anger, fear) were linked to a teacher-centred approach (Chen, 2018).

The Broaden-and-Build Theory of Emotion

Although there are many different theories that attempt to define and explain emotions, one of the more common contemporary theories of emotion posits that the intensity and valence of everyday emotions affect an individual's thoughts and behaviours. Fredrickson (1998) used the *broaden-and-build theory* to propose that during situations that elicit positive emotional responses, an individual's thought-action repertoire is broadened. This provides them with the ability to not only expand their capacities for attention, thinking, and action, but also to access a wider range of personal physical, intellectual, and social resources. Conversely, situations that elicit negative emotional responses narrow an individual's capacities for attention, thinking, and action, as well as their access to physical, intellectual, and social resources.

This theory is supported by multiple studies. For example, Fredrickson and Branigan (2005) found that students who watched a positive emotion-provoking short film were more likely to broaden their scope of attention and thought-action repertoires, whereas students who

watched a negative emotion-provoking film narrowed their thought-action repertoires. A separate study further found that positive emotions not only help to broaden the individual's resources, but that they can also negate and undo the cardiovascular aftereffects that negative emotions have on the body (Fredrickson, Mancuso, Branigan, & Tugade, 2000). This protective effect of positive emotions was also observed in another study examining the role of positive emotions following a strongly negative emotional experience (Fredrickson, Tugade, Waugh, & Larkin, 2003). Results from this study found that students' positive emotions accounted for a significant portion of the relation between pre-existing trait resilience and depressive symptoms following the 9/11 attacks, indicating that positive emotions could also act as a buffer to the psychological aftereffects associated with negative emotions. This study further provided evidence that both positive and negative emotions can indeed co-occur in a given situation. For example, students with previously measured resilience documented the same negative emotions as all participants but also reported parallel positive experiences such as gratitude and perspective taking that was psychologically healthy. Taken together, Fredrickson's studies provide some promising evidence for potential mental and physical health benefits of positive emotional experiences.

Though experimental and broad survey-based studies support the *broaden-and-build theory*, there has been a lack of studies testing the utility of this theory to understand naturalistic school contexts. One such study found that teachers who reported higher levels of positive emotions (i.e., joy, pride, love) tended to be more engaged in their work, whereas those who reported more negative emotions (i.e., anger, fatigue, hopelessness) tended to be less engaged in their work (Burić & Macuka, 2018). Another study, which had teachers record day-to-day positive and negative emotions in a journal, found that positive emotions elicited more adaptive

reappraisal strategies, whereas negative emotions elicited both maladaptive and adaptive reappraisal strategies (Lavy & Eshet, 2018). Further, the study also found a significant positive correlation between negative emotions and burnout, as well as a significant negative association between positive emotions and burnout.

One common problem with the above studies, and emotional research more generally, is that they tend to rely on relatively narrow measures that focus primarily on the intensity of a select few momentary negative and/or positive emotions. These measures, often employed in lab-based settings, fail to capture the broader range of both positive and negative emotions an individual can and often does experience during any given naturalistic situation, as well as the frequency of these complex emotional experiences over an extended period of time. Given what is already known about the positive and negative effects of emotions on not only teachers', but also students' mental health, well-being, and performance in the classroom, it is important to further understand the role that complex emotional experiences play within the classroom context. With that being said, however, there currently is a paucity of research to help us understand the emotional profile of everyday experiences and how positive and negative school experiences relate to the mental health and well-being of teachers. Conducting further and more in-depth research in this area will help those involved in school-based mental health to better identify social-emotional risk and protective factors, which could further be used to develop or adapt primary, secondary, or tertiary intervention-based strategies within the school system.

Current Study

The present study aims to build on the current knowledge and understanding of how teachers' daily positive and negative emotions in the classroom influence their lives by considering the broader range and frequency of emotional experiences, specifically regarding

their perceptions of collegial social support and mental well-being. Consistent with the *broaden-and-build theory,* it is hypothesized that teachers who report more frequent, intense, and complex negative emotional experiences (higher negative emotional load) within the classroom will be less likely to perceive workplace social support, whereas teachers who report more frequent, intense, and complex positive emotional experiences (higher positive emotional load) will be more likely to perceive social support. It is further hypothesized that increased negative emotional load will be correlated with lower overall mental health, and that positive emotional load will act as a moderator between these variables, buffering the effects of negative emotions when positive emotions are also present.

Method

Participants

Survey data from 60 participants between the ages of 26 and 68 years (M = 46.35, SD = 9.73) were collected during a province-wide teachers union conference. Eleven (18%) of the participants identified as male, whereas 49 (82 %) identified as female. Years of teaching experience ranged from 1 to 40 years (M = 16.58, SD = 9.34), and a total of 11 participants (18%) identified as being within the first five years of their teaching careers. Forty-seven participants (78%) identified as classroom teachers, whereas the remaining 13 participants (22%) comprised support staff (e.g., resource teacher, EAL teacher, reading specialist.). Elementary teachers comprised 65% (n = 39) of the sample, junior 8% (n = 5), high school teachers comprised 25% (n = 15), and the remaining 2% (n = 1) held roles that spanned primary (i.e., kindergarten) to grade 12.

Measures

Full scale descriptions are provided here to understand the full survey package teachers completed. This thesis was conducted as part of a broader research project. The current study tested a priori quantitative hypotheses using items highlighted yellow in Appendix A. Descriptive statistics for all of the quantitative scales are provided in Table 4.

Emotional Experiences Questionnaire – Teacher Form (EEQ-TF; Hayre & Ritchie, in preparation). The EEQ-TF consists of open-ended items which asked teachers to describe an intensely positive and negative classroom event in detail. These questions were then followed by a separate measure (outlined below) that required the teachers to rate the extent to which they experienced various emotions during the event. Following this, the teachers completed additional open-ended questions asking them to describe how their emotions influenced their thinking and behaviours during the situation. Although not used for the purposes of this study, these items are intended to provide context and to explore the attributions teachers make for how their emotions affected their subsequent thought-action processes (see Appendix A).

Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988). Quantitative data on teachers' emotional experiences were collected using the PANAS, which consists of 20 items that ask the participant to rate their momentary experiences with a range of emotions on a five-point Likert scale (i.e., 0 = Not at all; 4 = Extremely). There are two separate scales within the PANAS, with 10 items representing positive emotions (e.g., proud) and 10 items representing negative emotions (e.g., scared). The PANAS has been widely used in the field of emotion research, and as such, has been deemed as a reliable and valid measure of affect for a wide range of ages and cultures (Crawford & Henry, 2004; Kercher, 1992; Melvin & Molloy, 2000; Merz et al., 2013; Terraciano, McCrae, & Costa Jr, 2003).

Based on findings from a previous study by Hayre & Ritchie (2019), an additional 22 items were added to the PANAS to account for other emotions commonly noted by teachers in their experiences. Eleven of these items reflected additional positive emotions (e.g., affirmed, happy), whereas 11 reflected additional negative emotions (e.g., hopeless, discouraged). These items were generated by asking teachers what other words (above and beyond the PANAS) they would use to describe how they felt during recalled positive and negative events in a previous exploratory study. Though these additional items are not yet standardized, they are the vocabulary of other local teachers and thought to be important to ensure the emotion measure used terminology relevant to the participants' experiences.

Three novel items were added to the end of the positive and negative-event sections of the survey to measure the perceived frequency of similar positive and negative emotional experiences within the classroom, and also the extent to which teachers perceived collegial social support from administrative colleagues as well as fellow teachers. The frequency of emotional experiences was measured using an eight-point Likert scale (i.e., 1 = only this one time reported, 8 = multiple times a day). This item was used to multiply the intensity of emotions felt from the above emotion items in order to generate the Positive Emotional Load and Negative Emotional Load scores used in this study. Perceived support from administrative colleagues and fellow teachers was measured using Yes/No questions. These two items were used in this study as an outcome variable.

Medical Outcomes Study 36-Item Short Form Health Survey (MOS SF-36; Ware & Sherbourne, 1992). Teacher well-being was measured using the MOS SF-36. This measure consists of 36 items asking participants to rate the extent to which they experience eight different aspects of physical and mental health: physical functioning, role-physical, bodily pain, general

health, vitality, social functioning, role-emotional, and mental health. Questions range from simple Yes/No questions to more complex questions asking subjects to rate different aspects of health on three, five, and six-point Likert scales. Each portion of the test is then scored on a scale that ranges from 0 (severe limitation) to 100 (no limitation). The items are self-report and general statements about well-being. Specific symptoms or personal details are not asked for in this scale. This means that specific illness presentations cannot be specified and the scales indicate a broad sense of well-being or lack thereof. Previous research has found the MOS SF-36 to be both statistically valid and reliable with a range of diverse populations (McHorney, Ware, & Raczek, 1993; McHorney, Ware, Lu, & Sherbourne, 1994; Ware, 2000). This scale was used because people can be hesitant to share personal illness details, particularly if reporting a diagnosis or symptom that might make them feel that they could be identifiable. Participants' desire for anonymity and comfort with items was prioritized in choice of health measurement scale used. The Mental Health scale, as an indicator of general psychological well-being, was used as an outcome variable in this study.

Procedure

This anonymous survey study was conducted over the course of a two-day-long teachers' union council meeting in Nova Scotia. Researchers were given a table where they could talk about the study with the 250 delegates. Those willing to participate in the study were given an envelope containing a consent information letter (see Appendix B) and the full survey (see Appendix A) to complete at their leisure over the course of the conference. The consent letter outlined the purpose of the research, potential risks and benefits, consent, anonymity, and the contact information for the researchers in the case of any questions or concerns. After reading the consent letter, teachers were asked to complete the anonymous demographics form along with

the questions from the measures outlined above. Once completed, the participants were asked to return the envelope containing the completed survey package to the researchers.

Results

Tests of Normality

Weighted scores for positive and negative emotional load were calculated by multiplying the percentage of positive and negative emotions experienced during teachers' reported events by the reported frequency score (1 – 8) and then dividing by the highest possible frequency value. Both positive and negative emotional load were normally distributed, as indicated by Shapiro-Wilk statistics > 0.9, similar mean and median values, and visual inspection of histograms and Q-Q plots. Also normally distributed under these same criteria were the SF-36 scales Bodily Pain, General Health, Social Functioning, and Mental Health. Due to scores of less than 45 or greater than 60, three scales were converted to low/high binary variables. These included the Vitality (N = 59; 88.1% low, 11.9 % high), Role-Emotional (N = 60; 55% low; 45% high), and Role-Physical (N = 53; 32.1% low, 67.9% high) scales. Physical Functioning was the only scale that was negatively skewed.

Analysis for Novel Scoring Method

To examine the relation between teachers' positive and negative emotional load and perceived administrative and peer support, binary logistic regressions were calculated with positive and negative emotional load as the predictor variables and peer and administrative support as the outcome variables. As shown in Table 1, there were extremely small and non-significant relations between positive emotional load and both perceived administrative (B = -.006, SE = .022, p = .767) and peer (B = -.042, SE = .038, p = .276) support. There were also small and non-significant relations between negative emotional load and both administrative (B =

.024, SE = .031, p = .437) and peer (B = -.005, SE = .050, p = .929) support. These results indicate that teachers' positive and negative emotional experiences do not appear to have any relation to their perceived support from school administrators or from their colleagues, and thus do not support this study's a priori hypothesis.

A pairwise Pearson correlation was used to test the relation between teachers' negative emotional load and overall mental health. Contrary to what was hypothesized, there was a very low and non-significant positive correlation between the two variables (r = .121, p = .370), which suggests that teachers' negative emotional load does not have any demonstratable relation to overall mental health. Although not central to our hypotheses, it is interesting to note that this non-significant result was consistent between negative emotional load and all other health scales, as well as between positive emotional load and all other health scales (see Table 2).

To test the moderating effect of positive emotional load on the relation between negative emotional load and teachers' mental health, a linear regression analysis was used with negative emotional load and the interaction between positive and negative emotional load as the predictor variables and mental health as the outcome variable. As shown in Table 3, negative emotional load alone accounted for an extremely small and non-significant proportion of the variance in mental health scores (R^2 = .015, $F_{(1,55)}$ = .818, p = .370; B = .114, p = .370), as did the interaction between negative and positive emotional load (R^2 = .022, $F_{(2,54)}$ = .611, p = .546; B = .096, p = .461). This non-significant predictive value of the interaction of positive and negative emotional load does not support the hypothesis that positive emotional load would act as a moderator in the relation between negative emotional load and mental health. Thus, positive emotional classroom experiences do not appear to serve as a protective factor against the effects that negative emotional classroom experiences have on teachers' mental health. This result is not necessarily

surprising given the above results which measured no demonstrable relation between positive or negative emotional load and mental health scores.

Analysis for Standardized PANAS Scales

To rule out the possibility of the results being due to the present study's novel and unstandardized approach to measuring emotion, the hypotheses were tested using just the negative and positive affect scales from the PANAS as the measure for emotion. As indicated by Shapiro-Wilk statistics > 0.9, similar mean and median values, and visual inspection of histograms and Q-Q plots, the Negative Affect scale was normally distributed, while the Positive Affect scale was negatively skewed. Results using the PANAS scales were consistent with those using the novel scoring method, as there were no demonstratable relations between the Positive Affect scale and perceived administrative support (B = -.028, p = .602) or peer support (B = -.002, p = .985); the Negative Affect scale and perceived administrative support (B = .028, p = .423), peer support (B = -.147, p = .070), or mental health (r = -.122, p = .354); or the interaction between the Negative and Positive Affect scales and mental health scores (R^2 = .031, $F_{(2,57)}$ = .900, p = .412; B = -.144, p = .315). Regardless of the method of measurement scoring, teachers' classroom-based emotional experiences do not appear to be related to their perceived levels of social support or their mental health.

Discussion

Summary and Interpretation

The objective of the present study was to examine how teachers' classroom-situated positive and negative emotional experiences relate to their perceived social support and mental health. Rather than relying on the narrow measures of emotion typically used in emotion research, this study employed a novel approach to measuring emotion which considered a broader range of emotions, informed by qualitative results from a previous study, as well as the frequency of teachers' emotional experiences within the classroom setting. Consistent with Fredrickson's (1998) *broaden and build theory*, it was suspected that teachers who reported higher levels of positive emotional load would be more likely to indicate collegial social support from both administration and peers, while teachers who reported higher levels of negative emotional load would be less likely to indicate having administrative or peer support. It was further hypothesized that teachers' negative emotional load would be related to lower overall mental health, and that positive emotional load would act as a moderator in this relation.

With respect to teachers' emotional load and perceived social support, results from this study found weak and non-significant relations using both the novel and standardized scoring methods for positive and negative emotional experiences. This suggests that teachers with higher positive emotional load are no more likely to perceive social support from either administration or peers than teachers with higher negative emotional load, and vice versa. These results may help shed light on inconsistencies noted between the theoretical broadening of social resources proposed by the *broaden and build theory* and previous studies which have found that only very specific negative (i.e., anxiety) and positive (i.e., contentment) emotions can elicit sociality in some individuals (Fredrickson & Branigan, 2005; Schachter, 1959). While this existing research

is important in furthering our understanding of individual emotions and resulting behaviour and cognition, the results of the present study suggest that the theoretical relation between the broader spectrum of positive and negative emotions and the expansion of social resources may not actually exist.

Much of the same can also be said in terms of the relation between teachers' negative emotional experiences and their overall mental health. Whereas previous research has found negative correlations between specific negative emotions and aspects of teacher health such as burnout, anxiety, depression, and somatisation (e.g., Burić, Slišković, and Penezić, 2019; Lavy & Eshet, 2018), results from this study indicate no such relation when considering the broader emotional context within the classroom. Given this finding, it should also come as no surprise that non-significant results were also noted for the moderating effect of positive emotional load on the relation between negative emotional load and teachers' mental health, which contrasts previous studies citing the protective nature of positive emotions on aspects of physical and mental health (e.g., Fredrickson, Mancuso, Branigan, & Tugade, 2000; Fredrickson, Tugade, Waugh, & Larkin, 2003). Taken together, these results suggest that it is likely that either personal or workplace factors outside of the classroom take a larger toll on teachers' mental health.

Several explanations may help contextualize these results. With regard to sources of stress outside of the classroom, teachers in this study scored lower than expected on measures of mental health in comparison to a previous sample of Canadians not identified by profession (i.e., Hopman et al., 2000), even though they generally reported higher levels of positive emotional load than negative emotional load for situations within the classroom. Therefore, it is likely that teachers' negative emotional experiences outside of the classroom are much more intense and

frequent than their positive emotional experiences, and thus, could be overshadowing and negating any of the positive effects of their classroom-based experiences. This thought would align with some research on sources of teacher stress, which has indicated that teachers tend to cite sources outside of the classroom (e.g., over-commitment with too many responsibilities, little to no downtime, lack of support when teaching complex students, time pressures and workload, coping with change, being evaluated by others, dealings with colleagues, dealings with administration/management) as having the largest bearing on their mental health (Howard & Johnson, 2004; Martin, Dolmage, & Sharpe, 2012; Richards, 2012). Regardless of the positive experiences that teachers have within the classroom, they may be facing too many negative experiences from other sources in order to maintain their psychological well-being.

Another possible explanation could relate to social support. The current sample's relatively poor levels of mental health occurred despite them overwhelmingly indicating receiving collegial social support from peers (n = 56, 93%) and to a lesser extent supervisors (n = 47, 78%), which has previously shown to be a protective factor against workplace stress and burnout (Haydon, Leko, & Stevens, 2018; Howard & Johnson, 2004). However, even though some research has found social support to be an effective buffer to the effects of burnout, other research has found that it is the type of interactions and support that matters more so than just receiving any type of support. For example, Kahn, Schneider, Jenkins-Henkelman, and Moyle (2006) found that positive work-related social support and non-job related social support were linked to decreases in some aspects of burnout (i.e., emotional exhaustion, cynicism, and professional efficacy), whereas negative work-related social support and empathy were linked to increases. Although the current study did not examine the specific nature of teachers' social interactions, it is possible that the teachers in this sample engage in the types of social support

that both positively and negatively contribute to their mental health. Alternatively, whereas it is possible that teachers may be doing an adequate job of engaging in some health care practices and dealing with work related problems while at work, this may not extend to outside of the workplace. Simply put, teachers may be expending so much of their cognitive and social resources at work that they are physically and mentally unable to continue to engage in activities that would improve their well-being during their time off at home. This appears to be a strong possibility given the fact that teachers in this study also scored significantly lower than expected on the vitality and social functioning subscales of the SF-36. Teachers often indicated that they felt tired and worn out and that this significantly affected the amount of time they were able to spend socializing with family and friends. While there has been more effort as of late to increase the amount of workplace mental health supports available to teachers, it is evident that an equal amount of effort is needed to increase strategies and supports outside of the workplace as well.

Practical Implications

This field of study has important implications for the profession of school psychology. One of the primary jobs of a school psychologist is to support the mental health and well-being of not only our students, but also our teachers. If we have a better understanding of the nature of the emotional experiences of our teachers both within and outside of the classroom and how these relate to their physical, psychological, and social well-being, we will have a much better idea of how to develop positive working relationships with them and aid in supporting and promoting healthy schools. For instance, results from this study indicated that teachers' emotional experiences within the classroom do not appear to be related to their relatively low general psychological well-being as measured by the SF-36 mental health scale. Therefore, in order to help our teachers to live healthier lives and be more effective in the classroom, one

could suggest that focus should be placed on designing and implementing interventions that focus more on limiting sources of stress, increasing deep-acting emotion-coping strategies, and increasing the amount of positive emotional experiences outside of the classroom. Three broad categories of such interventions, as outlined by Greenberg, Brown, and Abenavoli (2016), include: organizational (e.g., promoting a participatory environment, open communication, and collegial support; job redesign; institutional policy changes), organizational-individual (e.g., teacher induction and mentoring programs; workplace wellness programs; social-emotional learning programs), and individual interventions (e.g., stress management programs, mindfulness training, cognitive behavioural therapy groups). Implementing several of these strategies would not only help psychologists develop better working relationships with teachers, but also help teachers develop better working relationships with their colleagues, students, and parents.

Limitations

While the present study provides important information for furthering our understanding of the effects of teachers' classroom-based emotional experiences on social support and mental health, it is important to note its limitations. First, our sample consisted of a relatively small group of union delegates. As it is possible that these individuals may differ from the general teaching population in that they are volunteering time and resources to leadership roles and attending to the teaching profession at a level beyond their immediate classroom responsibilities, the generalizability of the results is somewhat limited. Second, the novel measure of emotional load used in this study aimed to address several issues with previous emotion research by considering the broad range of positive and negative emotions often experienced during any given naturalistic situation, as well as the frequency of these complex experiences over time.

Although this method was well-thought out in theory, the reliability and validity of the measure with items added from Hayre (2019) has yet to be studied or validated in large samples. Furthermore, equal weight was given to all individual emotions across the positive and negative scales. While this is not inherently problematic, some may argue that some individual emotions should be given more weight as they are more intense and thus may have more of a burden on an individual's health. Lastly, social support from peers and administration was measured using a simple binary yes/no question. More accurate indications of quality of social support may have been garnered had a measure with more possibilities for responses been used.

Future Research

Given the paucity of research on teachers' emotional experiences and related factors, much more research is needed in this area that addresses the concerns noted. While this study aimed to further our understanding of the effects of teachers' classroom-based emotional experiences by employing a novel measure which considered the range, intensity, and frequency of emotional experiences, this and other measures must continue to be refined. Given the known effects of teacher stress, it is imperative that we gain knowledge of their emotional experiences, regardless of whether that be individual emotions or the entire emotional context. This will be important to further examine for experiences both within and outside of the classroom. Additionally, research should continue to explore possible co-variates that could help to explain the relation between teachers' emotional experiences in classroom-, broader workplace- and personal-contexts and their mental and physical health.

This study also helped highlight the drastic differences between aspects of teachers' and the general publics' mental and physical health. However, the normative data used to make comparisons were somewhat dated. As the SF-36 is still a widely used measure for specific

patient populations, it would be useful to have updated norms for not only the general public, but also for various professions in order to make more accurate comparisons. This would allow for researchers to gain a better understanding of what types professionals are most at risk and in need of help. Furthermore, although some effort has been made to implement programs and supports aimed at improving the mental health of our teachers, much more research is needed in this area to further determine best practices. As it is evident from low social-functioning scores that issues can extend into the personal lives of teachers as well, additional research should also look into how to support teachers' health outside of the school context.

Conclusions

This study is the first, to the author's knowledge, to assess the emotional load of teachers' classroom experiences and their general well-being in Nova Scotia. With efforts to support and promote healthy schools, we must understand how teachers are doing. Though the directional a priori hypotheses were not supported and no linear relation was detected between the emotional load of classroom experiences and teacher's general psychological well-being, very low levels of general psychological well-being were measured. Descriptively, teachers indicated that they felt a range of positive and negative emotions to a moderate to high extent in the classroom. Teaching involves emotional labour, and teachers' general psychological well-being appears to be low. Further research is needed to understand both of these, whether the two are related, and what can be done to support teachers.

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Table 1

Binary Logistic Regressions Between Emotions and Collegial Social Support

	B	*S.E.*	*p*
Positive Emotional Load			
Peer Support	-.042	.038	.276
Administrative Support	-.006	.022	.767
Negative Emotional Load			
Peer Support	-.005	.050	.929
Administrative Support	.024	.031	.437

Table 2

Correlation Coefficients Between Emotions and SF-36 Health Scales

SF-36 Scale	Positive Emotional Load		Negative Emotional Load	
	r	*p*	*r*	*p*
Mental Health	.10	.44	.12	.37
General Health	-.11	.42	-.01	.98
Social Functioning	-.23	.08	.12	.36
Physical Functioning	-.04	.79	-.10	.47
Vitality	-.13	.32	.16	.23
Bodily Pain	.01	.95	.06	.71
Role – Physical	.11	.40	.01	.93
Role – Emotional	.17	.18	.14	.31

Table 3

Linear Regressions for Emotions Predicting Psychological Well-Being (SF-36 Mental Health)

	R^2	*p*	*B*	*p*
Negative Emotional Load	.015	.370	.114	.370
Negative Emotional Load* Positive Emotional Load	.022	.546	.096	.461

Table 4

Emotional Load, PANAS Scale and SF-36 Scale Statistics, N = 60

	Mean	*St.Dev*	*Minimum*	*Maximum*
Emotional Load				
Positive	58.13	6.15	40	70.95
Negative	46.04	8.61	25.5	61
PANAS Scale				
Positive	44.55	5.52	25	50
Negative	31.93	8.97	15	50
SF-36 Scale				
Mental Health	27.53	9.71	8	48
Social Functioning	36.66	23.11	0	87
General Health	51.33	13.57	10	80
Bodily Pain	37.91	23.33	0	100
Physical Functioning	69.58	16.88	10	85

Notes. Emotional Load scores range from 1 to 100 with higher scores indicating more frequent and intense emotions. PANAS Scale scores range from 10 to 50 indicating more intense emotions in relation to one recalled event. SF-36 Scale scores range from 0 to 100 with higher scores indicating better health.

Appendix A

Emotional Experience Questionnaire

Describe a positive event that produced a strong emotional reaction while you were teaching a group of students. There is no correct situation to report. Take a few minutes to think about the details of the event and write what you are thinking about in as much detail as possible (i.e. the people involved, things that happened, things people said, the location you were in).

Please think about the event you just described. Rate the extent to which you felt the following listed emotions DURING the event you just described:

Likert-scale:	1 Not At All	2 A Little	3 Moderately	4 Quite A Bit	5 Extremely

	1	2	3	4	5
Active	❍	❍	❍	❍	❍
Enthusiastic	❍	❍	❍	❍	❍
Determined	❍	❍	❍	❍	❍
Attentive	❍	❍	❍	❍	❍
Inspired	❍	❍	❍	❍	❍
Strong	❍	❍	❍	❍	❍
Interested	❍	❍	❍	❍	❍
Alert	❍	❍	❍	❍	❍
Excited	❍	❍	❍	❍	❍
Proud	❍	❍	❍	❍	❍
Affirmed	❍	❍	❍	❍	❍
Trusting	❍	❍	❍	❍	❍
Surprised	❍	❍	❍	❍	❍
Giddy	❍	❍	❍	❍	❍
Passive	❍	❍	❍	❍	❍
Overwhelmed	❍	❍	❍	❍	❍
Appreciative	❍	❍	❍	❍	❍
Thrilled	❍	❍	❍	❍	❍
Happy	❍	❍	❍	❍	❍
Relaxed	❍	❍	❍	❍	❍
Appreciated	❍	❍	❍	❍	❍

	1	2	3	4	5
Frustrated	❍	❍	❍	❍	❍
Anxious	❍	❍	❍	❍	❍
Confused	❍	❍	❍	❍	❍
Sad	❍	❍	❍	❍	❍
Worried	❍	❍	❍	❍	❍
Disrespected	❍	❍	❍	❍	❍
Helpless	❍	❍	❍	❍	❍
Embarrassed	❍	❍	❍	❍	❍
Discouraged	❍	❍	❍	❍	❍
Grateful	❍	❍	❍	❍	❍
Nervous	❍	❍	❍	❍	❍
Scared	❍	❍	❍	❍	❍
Upset	❍	❍	❍	❍	❍
Guilty	❍	❍	❍	❍	❍
Hostile	❍	❍	❍	❍	❍
Ashamed	❍	❍	❍	❍	❍
Jittery	❍	❍	❍	❍	❍
Irritable	❍	❍	❍	❍	❍
Distressed	❍	❍	❍	❍	❍
Mad	❍	❍	❍	❍	❍
Hopeless	❍	❍	❍	❍	❍

3. Are there any other words you would use to describe your feelings during this event? If so, please share here:

Please explain in as much detail as possible how you think your emotional reactions influenced the thoughts you had during the event.

Please explain in as much detail as possible how you think your emotional reactions influenced decisions you made and things you did (your behaviour) during the event.

How often do events that evoke this range and intensity of emotions happen at work?

- ❍ Multiple times a day
- ❍ Once a day
- ❍ Weekly
- ❍ Monthly
- ❍ A few times per year
- ❍ Once per year
- ❍ Once every few years
- ❍ Only this one time reported

Describe a <u>negative</u> event that produced a strong emotional reaction while you were teaching a group of students. There is no correct situation to report. Take a few minutes to think about the details of the event and write what you are thinking about in as much detail as possible (i.e. the people involved, things that happened, things people said, the location you were in).

Please think about the event you just described. Rate the extent to which you felt the following listed emotions DURING the event you just described:

Likert-scale:	1 Not At All	2 A Little	3 Moderately	4 Quite A Bit	5 Extremely

	1	2	3	4	5
Active	❍	❍	❍	❍	❍
Enthusiastic	❍	❍	❍	❍	❍
Determined	❍	❍	❍	❍	❍
Attentive	❍	❍	❍	❍	❍
Inspired	❍	❍	❍	❍	❍
Strong	❍	❍	❍	❍	❍
Interested	❍	❍	❍	❍	❍
Alert	❍	❍	❍	❍	❍
Excited	❍	❍	❍	❍	❍
Proud	❍	❍	❍	❍	❍
Affirmed	❍	❍	❍	❍	❍
Trusting	❍	❍	❍	❍	❍
Surprised	❍	❍	❍	❍	❍
Giddy	❍	❍	❍	❍	❍
Passive	❍	❍	❍	❍	❍
Overwhelmed	❍	❍	❍	❍	❍
Appreciative	❍	❍	❍	❍	❍
Thrilled	❍	❍	❍	❍	❍
Happy	❍	❍	❍	❍	❍
Relaxed	❍	❍	❍	❍	❍
Appreciated	❍	❍	❍	❍	❍

	1	2	3	4	5
Frustrated	❍	❍	❍	❍	❍
Anxious	❍	❍	❍	❍	❍
Confused	❍	❍	❍	❍	❍
Sad	❍	❍	❍	❍	❍
Worried	❍	❍	❍	❍	❍
Disrespected	❍	❍	❍	❍	❍
Helpless	❍	❍	❍	❍	❍
Embarrassed	❍	❍	❍	❍	❍
Discouraged	❍	❍	❍	❍	❍
Grateful	❍	❍	❍	❍	❍
Nervous	❍	❍	❍	❍	❍
Scared	❍	❍	❍	❍	❍
Upset	❍	❍	❍	❍	❍
Guilty	❍	❍	❍	❍	❍
Hostile	❍	❍	❍	❍	❍
Ashamed	❍	❍	❍	❍	❍
Jittery	❍	❍	❍	❍	❍
Irritable	❍	❍	❍	❍	❍
Distressed	❍	❍	❍	❍	❍
Mad	❍	❍	❍	❍	❍
Hopeless	❍	❍	❍	❍	❍

3. Are there any other words you would use to describe your feelings during this event? If so, please share here:

Please explain in as much detail as possible how you think your emotional reactions influenced the thoughts you had during the event.

Please explain in as much detail as possible how you think your emotional reactions influenced decisions you made and things you did (your behaviour) during the event.

How often do events that evoke this range and intensity of emotions happen at work?

- ❍ Multiple times a day
- ❍ Once a day
- ❍ Weekly
- ❍ Monthly
- ❍ A few times per year
- ❍ Once per year
- ❍ Once every few years
- ❍ Only this one time reported

Demographics Form

Please respond to the following demographic items. These will be used to describe the group of people who participate in this study.

Ethnicity: Please use your own words and/or select all that apply from list below:

_____

- ❍ African
- ❍ African-Canadian
- ❍ Asian
- ❍ Caucasian
- ❍ East Asian
- ❍ East Indian
- ❍ European
- ❍ Indigenous
- ❍ Indo-Canadian
- ❍ Southeast Asian

Physiological Sex: Please use your own words and/or select all that apply from list below

_____

- ❍ Male
- ❍ Female

Gender Identity: Please use your own words and/or select all that apply from list below

_____

- ❍ Male
- ❍ Female
- ❍ Transgender
- ❍ Two-spirit
- ❍ Gender Non-Conforming

Your Age : _____

Please list the school(s) where you currently work: Your response will be used for data analysis purposes (as a nesting variable). All school names will be deleted once data are grouped and will never be shared:

_____

Profession: Please use your own words and/or select all that apply from list below:

_____

- ❍ Permanent Position Classroom Teacher
- ❍ Contract Classroom Teacher
- ❍ Substitute Teacher
- ❍ Educational Program Assistant (EPA)
- ❍ Principal
- ❍ Vice-Principal
- ❍ Teacher-In-Training (B.Ed student)
- ❍ School Psychologist
- ❍ Speech-Language Pathologist
- ❍ School Counsellor

I have been working in the profession I listed above for _____ years.

Students I currently work with are in grade(s): _____

_____.

Which is the most advanced degree you have?

Bachelors Masters Doctorate

Do you and your peers support one another when needed? Yes No

Do you and your supervisors support one another when needed? Yes No

TEACHER CONCERNS INVENTORY

Read each statement carefully and decide the extent to which you feel this way about your job. There are no correct answers- please respond honestly to all items. All data are anonymous.

Likert-scale:	1 Not At All	2 A Little	3 Moderately	4 Quite A Bit	5 Extremely

	1	2	3	4	5
I easily over-commit myself	❍	❍	❍	❍	❍
I become impatient if others do things slowly	❍	❍	❍	❍	❍
I have to do more than one thing at a time	❍	❍	❍	❍	❍
I have little time to relax or enjoy the day	❍	❍	❍	❍	❍
I think about unrelated matters during conversations	❍	❍	❍	❍	❍
I feel uncomfortable wasting time	❍	❍	❍	❍	❍
There is not enough time to get things done	❍	❍	❍	❍	❍
I rush when I talk to others	❍	❍	❍	❍	❍
There is little time to prepare for lessons and responsibilities	❍	❍	❍	❍	❍
There is too much work to do	❍	❍	❍	❍	❍
The pace of the school day is too fast	❍	❍	❍	❍	❍
My classes or case loads are too big	❍	❍	❍	❍	❍
I do not achieve my priorities due to time demands	❍	❍	❍	❍	❍
There is too much administrative paperwork in my job	❍	❍	❍	❍	❍
I lack promotion or advancement opportunities	❍	❍	❍	❍	❍
I am not progressing in my career as rapidly as I would like	❍	❍	❍	❍	❍
I need more respect on my job	❍	❍	❍	❍	❍
I receive an inadequate salary for the work I do	❍	❍	❍	❍	❍
I lack recognition for the extra work I do	❍	❍	❍	❍	❍
I lack recognition for the good teaching I do	❍	❍	❍	❍	❍
My personal opinions are not sufficiently aired	❍	❍	❍	❍	❍
I lack control over decisions made at my school(s)	❍	❍	❍	❍	❍
I am not emotionally stimulated on the job	❍	❍	❍	❍	❍
I am not intellectually stimulated on the job	❍	❍	❍	❍	❍
I lack opportunities for useful professional improvement	❍	❍	❍	❍	❍

Likert-scale:	1 Not At All	2 A Little	3 Moderately	4 Quite A Bit	5 Extremely

	1	2	3	4	5
I feel frustrated:					
…because of behaviour problems in my classroom	❍	❍	❍	❍	❍
…when I have to monitor student behaviour	❍	❍	❍	❍	❍
…because some students would do better if they tried	❍	❍	❍	❍	❍
…attempting to teach students who are unmotivated	❍	❍	❍	❍	❍
…because of poorly defined disciplinary procedures	❍	❍	❍	❍	❍
…when my authority is rejected by students	❍	❍	❍	❍	❍
…when my authority is rejected by administration	❍	❍	❍	❍	❍

I respond to stress:	1	2	3	4	5
…by feeling insecure	❍	❍	❍	❍	❍
…by feeling vulnerable	❍	❍	❍	❍	❍
…by feeling unable to cope	❍	❍	❍	❍	❍
…by feeling depressed	❍	❍	❍	❍	❍
…by feeling anxious	❍	❍	❍	❍	❍
…by sleeping more than usual	❍	❍	❍	❍	❍
…by procrastinating	❍	❍	❍	❍	❍
…by becoming fatigued in a very short time	❍	❍	❍	❍	❍
…with physical exhaustion	❍	❍	❍	❍	❍
…with physical weakness	❍	❍	❍	❍	❍
…with increased blood pressure	❍	❍	❍	❍	❍
…with feeling of heart pounding and/or racing	❍	❍	❍	❍	❍
…with rapid and/or shallow breath	❍	❍	❍	❍	❍
…with stomach pain of extended duration	❍	❍	❍	❍	❍
…with stomach cramps	❍	❍	❍	❍	❍
…with stomach acid or acid reflux	❍	❍	❍	❍	❍
…by using over-the-counter drugs	❍	❍	❍	❍	❍
…by using prescription drugs	❍	❍	❍	❍	❍

…by using alcohol	❍	❍	❍	❍	❍
…by calling in sick	❍	❍	❍	❍	❍

Health Survey

1. In general, would you say your health is:

   ❍ Excellent ❍ Very Good ❍ Good ❍ Fair ❍ Poor

2. Compared to one year ago, how would you rate your health in general now?

   ❍ Much better now than one year ago
   ❍ Somewhat better now than one year ago
   ❍ About the same
   ❍ Somewhat worse now than one year ago
   ❍ Much worse now than one year ago

   Why? _____

3. The following items are about activities you might do during a typical day. Does your health currently limit you in these activities? If so, how much?

	Yes, limited a lot	Yes, a little limited	No, not limited at all
Vigorous activities, such as running, lifting heavy objects, participating in strenuous sports	❍	❍	❍
Moderate activities, such as moving a table, pushing a vacuum cleaner, bowling, or playing golf	❍	❍	❍
Lifting or carrying groceries	❍	❍	❍
Climbing several flights of stairs	❍	❍	❍
Climbing one flight of stairs	❍	❍	❍
Bending, kneeling or stooping	❍	❍	❍
Walking more than a mile	❍	❍	❍
Walking several blocks	❍	❍	❍
Walking one block	❍	❍	❍

Bathing or dressing yourself	❍	❍	❍

4. During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities because of **your physical health?**

	Yes	No
Cut down the amount of time you spent on work or other activities	❍	❍
Accomplished less than you would like	❍	❍
Were limited in the kind of work or other activities	❍	❍
Had difficulty performing work or other activities (for example, it took extra effort or you needed help)	❍	❍

5. During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of any **emotional problems (such as feeling depressed or anxious)?**

	Yes	No
Cut down the amount of time you spent on work or other activities	❍	❍
Accomplished less than you would like	❍	❍
Didn't do work or other activities as carefully as usual	❍	❍

6. During the past 4 weeks, to what extent has your physical health or emotional problems interfered with your normal social activities with family, friends, neighbours, or groups?
   ❍ Not at all ❍ Slightly ❍ Moderately ❍ Quite a bit ❍ Extremely

7. How much bodily pain have you had during the past 4 weeks?
   ❍ None ❍ Very mild ❍ Mild ❍ Moderate ❍ Severe ❍ Very Severe

8. During the past 4 weeks, how much did pain interfere with your normal work (including both work outside the home and housework)?
   ❍ Not at all ❍ A little bit ❍ Moderately ❍ Quite a bit ❍ Extremely

These questions are about how you feel and how things have been with you during the past 4 weeks. For each question, please give the one answer that comes closest to the way you have been feeling.

How much over the past 4 weeks:	All of the time 5	Most of the time 4	A good bit of the time 3	Some of the time 2	A little of the time 1	None of the time 0
…did you feel full of pep?	❍	❍	❍	❍	❍	❍
…have you been a nervous person?	❍	❍	❍	❍	❍	❍
…have you felt so down in the dumps that nothing could cheer you up?	❍	❍	❍	❍	❍	❍
…have you felt calm and peaceful?	❍	❍	❍	❍	❍	❍
…did you have a lot of energy?	❍	❍	❍	❍	❍	❍
…have you felt downhearted and blue?	❍	❍	❍	❍	❍	❍
…did you feel worn out?	❍	❍	❍	❍	❍	❍
…have you been a happy person?	❍	❍	❍	❍	❍	❍
…did you feel tired?	❍	❍	❍	❍	❍	❍

9. During the past 4 weeks, how much of the time has your physical health or emotional problems interfered with your social activities (like visiting friends, relatives, etc.)?

❍ All of the time ❍ Most of the time ❍ Some of the time ❍ A little of the time ❍ None of the time

10. How true or false is each of the following statements for you?

	Completely true	Mostly true	Don't know	Mostly false	Completely false
I seem to get sick a little easier than other people.	❍	❍	❍	❍	❍
I am as healthy as (or healthier than) anybody I know.	❍	❍	❍	❍	❍
I expect my health to get worse.	❍	❍	❍	❍	❍
My health is excellent.	❍	❍	❍	❍	❍

Appendix B

INFORMED CONSENT

Study title: Teachers' Classroom-Based Experiences and Emotions: A Mixed-Method Exploratory Study

Principle Investigator:
Krista C. Ritchie, PhD
Assistant Professor
Faculty of Education,
Mount Saint Vincent University

Introduction and Purpose:
Research indicates that emotionally elevated workplaces lead to stress and burnout. There is research documenting the extent to which teaching is stressful, but no evidence on the nuance of the range of contextualized emotional experiences that teachers have, or their impact on stress and well-being.

How will the researchers do the study? What will I be asked to do?
Any teacher from the province of Nova Scotia can participate in this study. If you are reading this consent form, you have a participation package, which is an envelope, this form, and a survey. You will see a box with an opening at the top beside the participation packages. If you choose to participate, you will complete the survey, seal it in the envelope and put it in the box. Please do not provide any identifying information. Participation is anonymous. Please return your survey today. Researchers will pick up the box with surveys and any unused participation packages at the end of the day.

Potential Harms and Burdens.
There are no expected harms. This study is focussed entirely on what you feel comfortable sharing. It is hoped that what is learned will be of future benefit to teachers broadly by contributing to understanding about the emotional demands (positive and negative) involved in the teaching profession. Results will be made public through conference presentations, and peer-reviewed academic publication. Results published in open-source online journals will be

available to anyone interested in learning about the results of the study. These links will be sent to the Nova Scotia Teacher's Union to post on their website.

Can I withdraw from the study?
You may withdraw from the study at any point. Participation is entirely voluntary. Withdrawal will not affect your work. If you begin to complete a survey and change your mind, simply discard the survey. If you complete the survey and then change your mind, do not put the survey in the box. The surveys are anonymous. Once you submit your survey into the sealed box, your survey cannot be identified and will be included in the data set to be analyzed.

Costs, reimbursements and incentives.
There will be no cost to you to participate in this study. There will be no reimbursement for time spent completing the survey. There is no potential to profit from or commercialize results of this research.

How will my privacy be protected?
Any information that is learned about you will be non-identifiable and anonymous. Paper-based study records will be kept in a locked area at Mount Saint Vincent University for 5 years following publication of the results. Electronic data are stored on password protected, secure MSVU databases and will be deleted 5 years post-publication.

What if I have study questions or problems?
For questions or concerns, please contact Dr. Krista Ritchie, krista.ritchie@msvu.ca. You may also contact Brenda Gagne, Research Ethics Coordinator at Mount Saint Vincent University at brenda.gagne@msvu.ca.

What are my Research Rights?
Reading this consent form and return of the survey indicates that you have agreed to take part in this research and for your responses to be used for research purposes. In no way does this waive your legal rights nor release the investigator(s) or involved institution(s) from their legal and professional responsibilities. If you have any questions at any time during or after the study about research in general, you may contact the University Research Ethics Board at brenda.gagne@msvu.ca or visit the Research Ethics Office at Evaristus Room 223A.

How will I be informed of study results?
Any peer-reviewed publication of results in an academic journal will be shared with the Nova Scotia Teacher's Union. The union, specific schools or anything else potentially identifying will not be in any publication.