Seking Meliness

Descriptive Findings From the Survey of the Work Life and Health of Teachers in Regina and Saskatoon

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February 2012



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This research was supported by funding from the Saskatchewan Health Research Foundation (New Investigator Establishment Grant) to Ronald R. Martin. Direct correspondence to Ronald R. Martin, Ph.D., Faculty of Education, University of Regina, Regina SK S4S 0A2, Canada (ron.martin@uregina.ca)

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Abstract

A survey was conducted of the work life of teachers (K-12) in Regina and Saskatoon (n = 745). The following domains were surveyed: general working conditions, negative work-related stressors, positive aspects of teaching, burnout, general health, work engagement, work-related commitment, and retirement plans. This report provides an overview of the methodology of the

survey and the initial descriptive results. The findings from the present study are outlined and compared to the results of other national and international surveys of the work life and workload of teachers. Further, the findings are discussed in the context of recruitment and retention issues among teachers and the content and form of teacher education programs.



A Survey of the Work Life and Health of Teachers in Regina and Saskatoon: Descriptive Findings

A growing body of literature has amassed the increasingly regarding complex demanding nature of the work life of teachers. Within Canada, research in this general area has been conducted predominantly by the national and provincial teachers' associations, yielding a modest number of large-scale and methodologically rigorous studies. The resulting research reports have offered a clearer understanding of the work life of teachers, with a particular emphasis on their changing and expanding workloads. In a parallel fashion, a rising number of studies have begun to emerge in recent years that have focused increasing attention on the health problems (e.g., burnout) experienced by teachers who may be struggling to accommodate the demands of a changing educational landscape. This paper will begin with a brief overview of previous surveys of the work life/workload of teachers and the associated impact of rising workloads. Next, our survey of the work life and health of teachers in Regina and Saskatoon will be presented. The descriptive data from our survey will be summarized and the results will be discussed and placed in context alongside other national and international surveys.

The Work Life and Workload of Teachers

Previous large-scale surveys of the work life and workload of teachers in Canada have varied considerably in content and methodology. In addition to gathering demographic data and descriptors of the respondents' teaching positions (e.g., full- versus part-time status, grade level taught, subjects taught, etc.), most work life and workload surveys have typically gathered information about teachers' general perceptions of their working environments, those aspects of teaching that are perceived to be sources of negative stress, and the amount of time teachers spend on their varied work-related activities. To a lesser extent, these surveys have also asked

teachers to identify those aspects of their work that are positive and rewarding.

Teachers' Perceptions of the Workplace

An examination of teachers' perceptions of their workplace is crucial, given that these perceptions have been linked to several important outcomes. For example, turnover among teachers (i.e., including teacher migration and attrition) has been linked to job dissatisfaction that stems from negative working conditions, such as inadequate support or leadership from school administration (Allensworth, Ponisciak, & Mazzeo, 2009; Clark & Antonelli, 2009; Hirsch & Emerick, 2007; Ingersoll, 2001; Leukens, Lyter, & Fox, 2004), a weak sense of collective responsibility for improving the school (Allensworth et al., 2009), feeling unempowered and lacking sufficient input or influence over decision-making within the school (Allensworth et al.; Hirsch & Emerick, 2007; Ingersoll, 2001), and dissatisfaction with salaries, facilities, and resources (Hirsch & Emerick; Ingersoll, 2001; Leukens et al., 2004). Further, teachers' commitment to their work has also been tied to workplace characteristics such as feeling respected by key stakeholders (e.g., students, colleagues, administrators, and others outside of the school), having opportunities for professional development, and receiving constructive feedback from colleagues and administrators (Louis, 1998). A sense of professional self-efficacy among teachers is also related to feeling respected, their opportunities to develop and use their skills, and their sense of control over work-related matters (Louis).

Negative work-related stressors. Similar to Schaufeli and Bakker's (2004) definition of "job demands," we define "negative work-related stressors" as those aspects of the job that place a mental and/or physical strain on teachers, which may lead to adverse mental and physical consequences. Previous surveys of the work life of teachers have commonly included items that solicit

teachers' perceptions of stressful or negative aspects of their work. Although space limitations prevent a full review of the vast number of negative work-related stressors that have been identified, the following general types of stressors have been reported in previous empirical research: large class sizes (e.g., CTF, 2005; Dibbon, 2004; Schaefer, 2003), substantial diversity in classroom composition that includes split- or multi-grade classes and increased numbers of students with special cognitive, emotional, behavioural, social, and ESL/EAL needs (e.g., CTF, 2005; Dibbon, 2004; Harvey & Spinney, 2000; Naylor, 2001; Naylor & Malcolmson, 2001; Schaefer, 2003; STF, 1995), struggles related to working with students from dysfunctional family environments (e.g., Naylor, 2001; Schaefer, 2003), changes in curriculum and the pressure to address a growing number of social issues (e.g., Dibbon, 2004; Naylor, 2001), inappropriate teaching assignments (e.g., Dibbon, 2004), problems with preparation time (Dibbon, 2004; Harvey & Spinney, 2000; Naylor & Malcolmson, 2001; Schaefer, 2003; STF, 1995), increasing time and effort required to grade students' work and record progress or outcomes (Dibbon, 2004; Harvey & Spinney, 2000; Naylor & Malcolmson, 2001), seasonal reporting pressures (e.g., Naylor, 2001; Harvey & Spinney, 2000; Schaefer, 2003; STF, 1995), the time required to prepare for, and meet with, parents (Dibbon, 2004; Harvey & Spinney, 2000), supervision when not teaching (Dibbon, 2004; Harvey & Spinney, 2000; STF, 1995), working unpaid hours "off the clock" during evenings, weekends, and summer vacations (ATA, 1997; Harvey & Spinney, 2000; STF, 1995), inadequate resources such as support services or funds to purchase work-related materials and equipment (e.g., ATA, 1997; Dibbon, 2004; Harvey & Spinney, 2000; Naylor, 2001; Schaefer, 2003; STF, 1995), and difficulties in dealing with challenging parents (e.g., CTF, 2005; STF, 1995).

Positive aspects of teaching. While many surveys of the work life of teachers have addressed negative aspects of the work of teachers, fewer surveys have included content regarding teachers' perceptions of the positive aspects of their work. Again, to borrow from Schaufeli and Bakker's (2004) definition of "job resources," we define "positive aspects of teaching" as those physical, psychological, social, or organizational aspects of the job that reduce the

psychological and physiological effects of negative work-related stressors, help teachers to achieve their goals, and stimulate personal and/or professional growth. Convergent findings from surveys of the work life of teachers suggest that teachers view their rewarding relationships with students as the most positive aspect of their work (Brunetti, 2001; Schaefer, 2003; STF, 1995). This includes working with students, seeing students learn and grow, and noting the unexpected success of problem students (Brunetti, 2001). Teachers have also indicated that their relationships with other teachers, teaching assistants, and administrators are also rewarding aspects of their work (Schaefer, 2003). Highly satisfied teachers also report that other organizational characteristics (e.g., having a passion for teaching a particular subject, the excitement of the classroom, job-related autonomy, collegiality, the importance of teaching to society. and practical factors like job security, salary, benefits, and vacations) also contribute to their satisfaction with teaching (Brunetti, 2001).

The workload of teachers. While the list of negative work-related stressors described previously is by no means exhaustive, it clearly demonstrates the fact that teachers are vulnerable to stress emanating from a wide variety of sources. In addition, it is evident that teachers are voicing concerns not only about the increasingly complex nature of their work, but also the sheer volume of work they shoulder on an ongoing basis. Not surprisingly, the workload of teachers has been identified repeatedly as a problem (CTF, 2005; Dibbon, 2004; Naylor, 2001; Schaefer, 2003). Canadian Findings from research have consistently revealed that teachers work long hours that extend well beyond the standard 35- to 40-hour workweek. These studies commonly employ surveys combined with 24-hour timediaries that require teachers to record the time, duration, location, and nature of their work-related activities. Large-scale surveys of teachers in Nova Scotia (Harvey & Spinney, 2000), New Brunswick (Leblanc, 2000), Saskatchewan (STF, 1995), Alberta (ATA, 1997), and British Columbia (Naylor & Malcolmson, 2001), revealed that teachers spent, on average, 52.5, 51, 47, 52.9, and 53.1 hours per week, respectively, on work-related activities. As a result, teachers report that they routinely put in "invisible work," and log unpaid hours (Naylor, 2001). Convergent findings have

been reported based on research regarding the workload of part-time teachers. A Saskatchewan study (STF, 1997) found that part-time teachers often worked more hours than specified in their contract, and that they were often expected to attend meetings (e.g., parent interviews) outside their regularly scheduled hours.

The Impact of High Workloads

The formidable workload of teachers has been associated with a host of negative consequences across multiple domains, including: the health of teachers; job performance and satisfaction; the personal lives of teachers; and the larger educational system (i.e., problematic rates of absenteeism, disability claims, and attrition).

Impact on health. Increasing workloads have been linked to a commensurate rise in health problems among teachers. Work-related stress, in particular, has been identified as a troubling consequence of excessive workloads. The findings from a recent survey of teachers in Ontario revealed that 13% of the sample reported feeling stressed all the time, while 45% reported feeling stressed at least a few times each week (Jamieson, 2006). Other research has suggested that the problem of work-related stress has increased in some Canadian jurisdictions. For example, a recent survey of teachers in British Columbia revealed that three-quarters of teachers reported that their stress levels had increased over the past five years (Schaefer, 2003). As one might expect, the problem of rising stress levels among teachers has been documented in both Canadian and international contexts (Naylor, 2001; 2008). Naylor (2001) conducted a review of international research and educational publications regarding the stress associated with rising workload demands among teachers and found evidence of high incidences of psychological disorder (Naylor, 2001).

Johnson et al. (2005) compared the experience of occupational stress across 11,000 individuals in a large and diverse set of occupations (including 916 teachers). Of the 26 occupations included in the study, six (i.e., ambulance workers, teachers, social services, call centres, prison officers, and police) were identified as having worse than average scores on measures of psychological well-being and physical health. Schaefer (2003)

surveyed a sample of elementary and secondary school teachers (n = 644) in British Columbia and found that most teachers (84%) reported fatigue resulting from work, while health problems resulting from teaching were reported by 37% of the sample.

Impact on job performance and satisfaction. Work-related stress and burnout have also been conceptualized as precursors to other negative consequences. Naylor (2001) conducted a review of international research and educational publications regarding the stress associated with rising workload demands. The findings indicated that the volume and complexity of teachers' workloads have been linked to declining levels of job satisfaction, and a reduced ability to meet students' needs. Johnson et al. (2005) also found that teachers were below average in job satisfaction when compared with members of 20

other occupations.

Impact on teachers' personal lives. Increasing workloads appear to be having an impact on the personal lives of teachers. Harvey and Spinney (2000) studied the lives of a sample of teachers (n = 882) on and off the job and found that 75% of teachers expressed worries about not spending enough time with family and friends due to their work. In a study of teachers from Newfoundland, Dibbon (2004) reported that over half of teachers who were relatively new to the profession (i.e., with less than 10 years of service) indicated that they felt stressed, burnt-out, and that they did not have much time for family. Younghusband (2000) surveyed a sample of 100 teachers in Newfoundland and found that 75.5% wanted more time to spend with friends and 40.9% reported that their relationships were not good lately. Research conducted by Schaefer (2003) indicated that almost two-thirds of a sample of elementary and secondary school teachers (n = 644) from British Columbia reported loss of time for personal interests or hobbies, while six out of 10 teachers reported that they experienced a loss of time with family or friends, due to work commitments.

Systemic impact. Rising workloads and increased work-related stress have been linked to rising rates of absenteeism, claims for stress-related disability, moving from full-time to part-time work, and attrition among teachers (Naylor, 2001). Data released from the Quebec Provincial Association of Teachers indicated that 31% of teachers on long-

term leave left the classroom due to stress and burnout (Canadian Broadcasting Corporation; 2006). A recent study of teachers from Ontario who resigned (i.e., retired "early" or left the teaching profession) revealed that just over 10% of the sample resigned due to dissatisfaction with the job. The leading factors cited by dissatisfied teachers were workload issues and increasing stress, issues with administration, class sizes, and issues with particular teaching duties (e.g., dealing with IEPs).

The Present Study

Our study was conducted to obtain an updated picture of the work life and health of teachers in Saskatchewan (i.e., urban school divisions in Regina and Saskatoon) using a comprehensive survey. Our general goals regarding the content and form of the survey were as follows: (a) to create the survey without any a priori agenda that would bias the results in favour of any personal or political aims; (b) to assess a wide variety of domains that were relevant to the work life of teachers that included an emphasis on burnout and general health; (c) to include survey content that was relevant to our local context but broad enough to allow us to compare our results with the findings of other national and international surveys of the work life of teachers; (d) to strive for a balanced perspective by asking about negative and positive aspects of teaching; (e) where possible, to measure key constructs or domains using established measures with strong psychometric properties; and (f) to include questions that allowed us to gather both quantitative and qualitative data. While it is acknowledged that the present study relied mainly on quantitative research methods, open-ended questions were purposefully included to provide space for unstructured participant input, and ultimately, to add breadth and depth to our quantitative findings.

The findings from this study will better inform our understanding of the work life and health of teachers in the Canadian context, while allowing us to compare our results with the findings from similar studies in other jurisdictions. Methodologically rigorous studies of the work life and health of teachers are needed, given concerns regarding rising workloads and subsequent health and attrition issues among teachers. One arguable benefit of the current examination of the work life of teachers is that the research was funded entirely by the Saskatchewan Health Research Foundation, a provincial agency that facilitates health research in Saskatchewan. As a result, the study was not influenced by the provincial Ministry of Education or any organization that represents and advances the interests of teachers (e.g., the Saskatchewan Teachers' Federation). Therefore, the present survey of the work life of teachers was not planned or conducted according to any predetermined agenda.

Method

Participants

Ethics approval and formal permission to proceed were obtained from the principal investigator's university-based Research Ethics Board, and from all participating school divisions (see Appendices A1 through A4). Permission was received to recruit participants from three of the four urban school divisions in Regina and Saskatoon. According to the Saskatchewan Teachers' Federation, there were 2,400 teachers in the greater Saskatoon area (i.e., 1,043 teachers within St. Paul's Roman Catholic Separate Schools Division No. 20, and 1,357 teachers within the Saskatoon School Division No. 13). Additionally, there were approximately 690 teachers in the Regina Roman Catholic Separate School Division No. 81. The survey was sent to 3,090 teachers (Kindergarten to Grade 12), including newlyemployed and seasoned teachers, in urban schools. The final sample included self-reported responses from 745 teachers (i.e., a 24% response rate). Appendix B1 provides an overview of the demographics of the study sample.

Procedure

A literature search was conducted to identify general domains that were relevant to the work-life of teachers. The substantial body of research that resulted included studies that employed a variety of research methodologies (e.g., quantitative, qualitative, and mixed-method approaches), and a vast number of formal and informal measures that assessed various aspects of teaching. As a result, it was difficult to identify a single existing work-life survey that met all of our study requirements. Therefore, it was necessary to create a survey that suited our study goals. The general domains that were selected for inclusion in our survey were: (a) teachers' perceptions regarding their work environment (i.e., recognition, support or feedback from others; job-related control; the culture or atmosphere of the school; practical or tangible aspects of the job, such as salary and benefits); (b) work-related stressors; (c) positive aspects of teaching; (d) health (i.e., burnout, general health); (e) the impact of work-related stressors and health problems on the personal and professional lives of teachers; (f) engagement in one's work; (g) work-related commitment; and (h) retirement intentions.

Content validity. The process of selecting domains for inclusion in our survey began with a literature search regarding the work life of teachers. Several salient domains emerged from this search (e.g., negative stressors and burnout, job-related control and satisfaction, workload issues). In order to address our study aims, other domains that have received less attention in the literature were included in our survey (e.g., physical health, positive aspects of teaching, work-related commitment, intentions regarding retirement). Whenever possible, formal or established measures with strong psychometric properties were used to assess specific domains or constructs of interest (e.g., the Maslach Burnout Inventory - Educator's Survey was used to assess professional burnout; Maslach, Jackson, & Leiter, 1996). In other cases, it was necessary to generate items within survey domains as existing measures were off-target, too narrow in scope, or psychometrically unsound. The process of creating items involved a return to the literature to identify potentially relevant material within content areas, and repeated consultations with subject matter experts (i.e., faculty members within the Faculty of Education and teachers working in Regina) when developing and refining items. The process of consulting with subject matter experts has been recognized as an accepted practice when establishing content validity (Shultz & Whitney, 2004).

Survey deployment. In order to maximize participant recruitment rates, a modified version of Dillman's (2000) Tailored Design Method was used. Two key components of Dillman's method

involve the recommended use of personalized contact with participants and persistent follow-up procedures. Personalized contact was not possible in the present study, as the provincial teachers' federation was not able to disclose the names and/or home addresses of its members without compromising their anonymity. As a result, a general notice regarding the upcoming survey was printed on university letterhead and placed in each teacher's work mailbox one week in advance of the survey mailing. Subsequently, a survey package that included clear and detailed instructions for completing the consent form, the survey, and returning these items in the supplied postage-paid envelope was placed in each teacher's work mailbox. Approximately one month later, a small reminder/"thank you" card that encouraged them to participate if they had not done so and thanked them if they had returned a completed survey was placed in each teacher's work mailbox.

Materials

Unless otherwise stated, the same response scale was purposefully used in the majority of survey domains. Rather than create response scales that were unique to each domain or construct being measured, a decision was made to use a standard response scale, where possible. The response scale reflected the participants' level of agreement or disagreement with the individual items, and ranged from 1 (*strongly disagree*) to 6 (*strongly agree*). The form and content of the major domains of the survey will now be described.

Survey domain: Perceptions of the workplace. The following general instructions were presented to participants: "We'd like to learn more about how you view your current position and work environment. Please read each of the following statements and indicate the degree to which it describes your current position or work environment using the following scale:" Participants were asked if they felt they received adequate recognition, collegial support, and feedback regarding their work as teachers from a variety of sources. Participants were also asked for their perceptions of the "culture" (i.e., general atmosphere) of the schools in which they worked, and how much control they were able to exercise in their work. Finally, participants were asked for input regarding practical or tangible aspects of their jobs (e.g., salary, benefits).

Survey domain: Negative, work-related stressors. Participants were given the following general instructions: "We would like to learn more about the negative work-related stressors that you experience as a teacher. Below you will find a list of job-related stressors. Please read each one carefully." A list of 43 potential work-related stressors (e.g., "increased number of students with behaviour problems in the classroom") was presented.

Subsequently, participants were given blank spaces within the survey to provide written responses to two open-ended questions. The first question asked participants to list their top three negative job-related stressors. The second question asked participants to describe the worst thing that happened to them in their work as teachers. It is stressed that this question was not included to generate accounts of extremely negative events for sensational or gratuitous purposes. The question was included to recognize the fact that teachers may be confronted with extremely negative events. While it is acknowledged that such extreme events are, by definition, usually very rare, they may have an enduring impact on the professional and personal lives of teachers. For both questions, participants were given the instruction to avoid including names, dates, or any other information that might identify specific individuals.

Impact of work-related stress on personal lives. The following general directions were presented: "Below you will find a series of statements that describe the potential impact of work-related stressors on your personal life. Please read each statement carefully and indicate your level of agreement that it describes your own situation." The items required participants to consider the impact of work-related stress on their personal lives (e.g., effects on relationships with spouses/partners, friends, family life and personal interests).

Survey domain: Positive or beneficial aspects of teaching. Participants were given the following general instructions: "In order to obtain a balanced view, we would like to learn more about the positive or beneficial aspects of your work as a teacher. Below you will find a series of statements that reflect positive aspects of teaching. Please read each statement carefully." A list of eight positive aspects of teaching was presented. At first appearance, it may seem as though the survey was biased (i.e., the list of nine positive aspects of

teaching was considerably shorter than the list of 43 negative work-related stressors), but these lists were constructed following an extensive review of the literature, and considerable consultation with subject matter experts. Again, to provide a balanced perspective, blank spaces within the survey were provided for participants to provide written responses to two questions (i.e., a list of their top three positive aspects of teaching, and a description of the best thing that had ever happened to them in their work as teachers). Participants' written responses to the two open-ended questions were content analyzed according to the procedures specified in the preceding section.

Satisfaction with career and chosen position. Participants were asked to respond to five items regarding their satisfaction with their chosen career and their current position.

Survey domain: Health. The following aspects of health were assessed in our survey: professional burnout; the general mental and physical health of participants; chronic pain; physical complaints and diagnosed illnesses; and the perceived impact of work-related stress on health.

Burnout. The Maslach Burnout Inventory -Educator's Survey (MBI-ES; Maslach et al., 1996) was used to assess burnout in our sample. The MBI-ES is a 22-item self-report questionnaire that measures an educator's perceived levels of emotional exhaustion, (i.e., feelings of depleted emotional resources and difficulties with being psychologically available to others), depersonalization (i.e., cynical and detached attitudes toward students), and feelings of reduced personal accomplishment on the job. Individuals respond to each item by indicating the frequency with which they experience the feelings described in the items from a Likert-type scale ranging from 0 (never) to 6 (every day). Participants who are judged to be experiencing high levels of professional burnout are those who score high on the emotional exhaustion and depersonalization subscales, and low on the personal accomplishment subscale, according to established cutoff scores documented in the scoring and interpretation manual (Maslach et al.).

The MBI-ES has been found to be reliable and factorially valid (Gold, 1984; Iwanicki & Schwab, 1981). For the emotional exhaustion, depersonalization, and personal accomplishment scales,

Iwanicki and Schwab reported Cronbach's alpha levels of .90, .76, and .76, respectively, whereas Gold reported alpha levels of .88, .74, and .72, respectively.

Physical and mental health. The Short-Form-36 version 2 (SF-36 v2) is a 36-item questionnaire that is designed to broadly assess physical and mental functioning (Ware, Kosinski, & Dewey, 2000). The SF-36 v2 yields norm-based T-scores (mean = 50, standard deviation = 10) for the following eight subscales: (a) physical functioning (lower scores reflect greater limitations in performing everyday physical activities, whereas higher scores indicate that one can perform all types of physical activities, without limitations due to health); (b) role-physical (lower scores indicate problems with work or other daily roles due to physical health problems, whereas higher scores indicate no problems with work or other daily activities as a result of physical health); (c) bodily pain (lower scores indicate very severe and extremely limiting pain whereas higher scores indicate no pain or limitations due to pain); (d) general health (lower scores indicate that personal health is judged to be poor and deteriorating, whereas higher scores indicate that personal health is thought to be excellent); (e) vitality (lower vitality scores indicate that participants generally feel tired and worn out, whereas higher scores indicate that participants feel energetic most of the time); (f) social functioning (lower scores indicate extreme and frequent interference with normal social activities due to physical health or emotional problems, whereas higher scores indicate no problems with social activities due to physical or emotional problems); (g) role-emotional (lower scores indicate problems with work or other daily activities as a result of emotional problems, whereas higher scores indicate no problems with work or other daily activities due to emotional problems); and (h) mental health (lower scores indicate feelings of nervousness and depression all the time, whereas higher scores reflect feelings of peacefulness, happiness, and calm all of the time). It is also possible to calculate norm-based T-scores for two additional summary scores that reflect general mental health and physical functioning.

The sound psychometric properties of the SF-36 v2 (i.e., the eight subscales and the two summary scores) have been demonstrated in

abundance in previous studies (see Ware, n.d.; Ware et al., 2000). Previous empirical research (i.e., > 20 studies) has confirmed the reliability of the eight scales using estimates of both internal consistency and test-retest methods and provided evidence for the content, concurrent, criterion, construct, and predictive validity of the SF-36 v2 (Ware). Moreover, the two summary scales have been shown to be factorially valid across clinical and general populations of individuals from numerous countries (Ware).

Chronic pain. Participants were asked if they had ever been diagnosed with a chronic pain problem (i.e., pain lasting for at least three months) by a medical professional (i.e., a doctor or registered psychologist). If so, participants were asked to indicate how long their pain problem has persisted, and the location of their pain. In order to gauge pain severity, participants were asked to complete the Box 21 (Jensen, Miller, & Fisher, 1998). This measure is comprised of 21 boxes in a horizontal row that increase in 5-point increments, ranging from 0 (no pain) to 100 (pain as bad as it could be). Using this measure, respondents were asked to place an "X" in the appropriate box to indicate the severity of their pain in reference to two time periods (i.e., "today" and "the last 7 days").

Somatic complaints and diagnosed illnesses. In order to gather more specific information about the physical health of our participants, a modified version of the Teacher Somatic Complaint and Illness Inventory (TSCII; Belcastro, 1980) was used. Although this measure has been used infrequently in previous research, a review of the literature failed to reveal a widely used, formal measure that was designed to gather broad information regarding physical complaints or diagnosed illnesses. Using our modified version of the TSCII, participants were asked if they experienced any of 35 somatic complaints in the past year. For each endorsed complaint, participants were asked to indicate: (a) how often they experienced the problem (using a scale with the following increments: 1 = a few times a year, 2 = monthly, 3 = a few times a month, 4 = weekly, 5 = a few times a week, 6 = daily); and (b) the intensity of the problem (using a scale with the following increments: 1 = very mild, 2 = mild, 3 = fairly mild, 4 = fairly strong, 5 = strong, 6 = very strong). In addition, participants were asked if they had been diagnosed by a physician with any of 12 illnesses (e.g., ulcers, cardiovascular disorders, kidney problems), and the temporal emergence of any diagnosed illnesses in relation to starting one's teaching career (i.e., whether the illnesses began before or after becoming a teacher). Given the limited scope of the illnesses covered by the TSCII, participants were asked to list any additional diagnosed illnesses.

Impact of work-related stress on health. Participants were asked if they felt they had become ill or taken time off work due to work-related stress, or if they felt they worked when ill because they did not "have time to get sick." Participants were then asked if they had ever been diagnosed with any physical, mental, or emotional illnesses, by health professionals (e.g., doctors or registered psychologists), that were likely due to work-related problems, and if so, to list the illness(es). Finally, participants were asked to indicate how many days off they had taken from work due to illness over the past year.

Survey domain: Work engagement. Work engagement was assessed using the 17-item Utrecht Work Engagement Scale (UWES; Schaufeli & Bakker, 2003). Work engagement has been defined as the opposite of burnout (Shaufeli & Bakker). In contrast to employees who suffer from burnout, their engaged counterparts possess a sense of effective and energized connection with their work activities and view themselves as able to manage the demands of their job. The three subscales of the UWES are: (a) vigor, which describes an approach to one's work that is characterized by a sense of energy and resilience, persistence in the face of setbacks, and a willingness to invest effort (higher scores reflect greater levels of vigor); (b) dedication, which reflects feelings of enthusiasm and pride about one's work, feeling challenged and inspired, and deriving a sense of significance from one's work (high scores reflect greater levels of dedication); and (c) absorption, which corresponds to a sense of happiness and immersion in one's work, such that time seems to pass quickly and outside stimuli fade away (higher scores reflect greater levels of absorption). Mean scores for the three UWES subscales are calculated by adding the scores on the particular subscale and dividing the sum by the number of items of the same subscale. The mean for the total score is obtained in the same manner.

The UWES yields three subscale scores and a total score that range between 0 and 6. Higher scores indicate greater degrees of vigour, dedication, absorption, or overall engagement in one's work. Previous research regarding the psychometric properties of the UWES has been summarized by Shaufeli and Baker. The UWES appears to be both reliable (i.e., Cronbach's α values across the three subscales were always equal to or greater than .70, and usually ranged between .80 and .90) and valid (i.e., the construct validity of the measure was supported by confirmatory factor analyses and discriminant validity analyses).

Survey domain: Work-related commitment. Participants were asked to complete the revised 18-item Three Component Model Employee Commitment Survey (TCM; Meyer, Allen, & Smith, 1993) which measures commitment to the employee's organization (i.e., school) (e.g., "This organization deserves my loyalty"), and the 18-item Occupational Commitment Scale (Meyer et al.) which measures commitment to one's occupation (i.e., being a teacher) (e.g., "I am proud to be in my occupation"). When responding to items within both scales, respondents indicated their level of agreement using a scale that ranged from 1 (strongly disagree) to 7 (strongly agree). For each of these measures of work-related commitment, three subscales were derived: (a) affective commitment (i.e., the employee's emotional attachment to, involvement in, and identification with the organization); (b) normative commitment (i.e., feeling obligated to stay employed with the organization); and (c) continuance commitment (i.e., the awareness of the costs of leaving the organization).

The three aspects of commitment described above may reflect different work-related mindsets driven by desire, obligation, and cost. More precisely, employees with high levels of affective commitment stay because they want to, those with high levels of normative commitment stay because they feel they ought to, and those with high levels of continuance commitment stay because they have to do so. Research summarized by Meyer and Allen (2004) indicates that employees who want to stay (i.e., displaying high affective commitment) tend to outperform those who do not want to stay. Similarly, those employees who remain out of obligation (i.e., showing high levels of normative commitment) outperform those who

feel no obligation, but the observed effect on output is not as strong as that observed for commitment based on affect. Finally, those employees who stay to avoid losses (i.e., exhibiting high levels of continuance commitment) usually have little or no incentive to go beyond the minimum amount of work that is required to retain their positions.

Average scores on each of these three subscales may be computed with higher scores indicating stronger commitment (Meyer & Allen, 2004). When examining the profile of results across the three subscales of occupational and organizational commitment, the optimal profile would be one in which the affective commitment subscale is relatively high (i.e., above the scale mid-point) and the continuance commitment subscale is low (i.e., below the scale mid-point; Meyer & Allen, 2004). Cases that involve elevated continuance commitment subscale scores may suggest that employees feel "trapped" in the organization or profession, and as a result, less likely to do any more than that which is required of them.

Previous research (Meyer et al.) has indicated that both measures of work-related commitment are reliable (i.e., Cronbach's α values for the three subscales have all been in excess of .73) and valid (Allen & Meyer, 1996).

Survey domain: Intentions regarding retirement. Participants were asked to state the age at which they planned to retire. In addition, participants were presented with three items that pertained to their early retirement intentions and preparations.

Analyses

Established scoring procedures were used for all formal measures (e.g., MBI-ES, SF-36 v.2). In other cases (e.g., items that were created for this survey using numerically-anchored response scales), basic descriptive statistics will be reported. With respect to measures of central tendency, means and standard deviations will be reported. In addition, the median values will be reported to offset cases where extreme values may shift the mean, and to satisfy readers who view our common response scale that ranges from 1 (*strongly disagree*) to 6 (*strongly agree*) as providing ordinal-level data (for a full discussion of

scales of measurement and the selection of measures of central tendency, see Nunnally & Bernstein, 1994).

Thematic analyses were conducted to summarize the qualitative data generated from the participants' written responses to the four open-ended questions (i.e., queries about negative work-related stressors, positive aspects of teaching). The written responses for each question were transcribed verbatim from the questionnaires, entered into the QSR NUD*IST-6 software program, and then analyzed separately using Patton's (2002) thematic analysis techniques. The data from each transcript was initially divided into

super-ordinate categories that expressed self-contained meanings (e.g., "problems with students"). Individual meaning units within these overarching categories were then organized into unique and coherent themes, using the participants' own words to the greatest extent possible. Scientific rigour for the qualitative data analysis was achieved by following procedures designed to ensure the trustworthiness of data, including checking transcripts for accuracy, using the participants' own words as much as possible, and keeping an audit trail of the steps taken from data collection, to analysis and interpretation (Lincoln & Guba, 1985).

Results

Sample Description

In order to gauge the representativeness of our sample (see Appendix B1 for the demographic characteristics of study sample), we compared it to the larger population of teachers in elementary and secondary public schools in the province (2007/2008), by using data from Statistics Canada (Statistics Canada, 2011). The age distribution breakdown of teachers in our sample versus teachers in the provincial population was highly similar (i.e., less than 30 years old: 11.3% vs.14.8%; 30 to 39 years: 27.7% vs. 28.3%; 40 to 49 years: 28.0% vs. 30.3%; 50 to 59 years: 32.3% vs. 24.6%; and 60 years and over: 0.7% vs. 2%). Our sample was also representative of the larger population of teachers in terms of sex (i.e., our sample: 72.4% female; provincial population: 70.5% female) and employment status (i.e., our sample: 90.0% full-time status; provincial population: 87.5% full-time status). These results appear to indicate that our sample was representative of the larger population of teachers at the time of the survey.

Data Summary Format

When summarizing the results from those domains that employed the use of our common response scale that ranged from 1 (strongly disagree) to 6 (strongly agree), we will provide frequency data for each of the individual response options as this level of detail may be of interest to some readers (e.g., identifying the number and percentage of participants who strongly agreed or disagreed with a particular item). By presenting the data in this manner, it will also be possible to collapse across response options to allow for a general summary of the number and percentage of participants who agreed or disagreed with each item. In most cases, the items that are presented within the appendices have been shortened due to their length and number in the actual survey.

Perceptions of the Workplace

Descriptive data regarding our participants' ratings of agreement or disagreement are summarized in response to items regarding recognition from others, collegial support, sources of feedback, job-related control, the workplace (i.e., school) atmosphere or culture, and practical or tangible factors. The items in Appendix B2 through B7 are listed in descending order, according to the mean ratings of agreement.

Recognition from others. The teachers in this sample agreed that they received adequate recognition from their friends and family (85.9%), colleagues (88.2%), administrators (75.2%), students (75.7%), and the parents of their students (62.4%). In contrast, fewer participants (39.3%) indicated that they received adequate recognition for the work they do from their communities or society in general. This material is summarized in Appendix B2.

Collegial support. The results indicate that teachers in this sample agreed that they received adequate collegial support from their colleagues (90.5%), their administrators (77.3%), and the provincial teacher's federation (60.9%). This material is summarized in Appendix B3.

Feedback. The majority of teachers in this sample thought that they received adequate feedback about their work from their colleagues (76.8%), students (69.1%), and administrators (66.2%). In contrast, approximately half of our respondents agreed that they received adequate feedback from the parents of their students (55.0%), while less than one-third of the teachers in our sample felt that they received adequate feedback from their communities or society in general (30.2%). This material is summarized in Appendix B4.

Job-related control. The majority of teachers (80.5%) appreciated their opportunities for professional development. Further, although the majority of teachers in this sample agreed that they

had an acceptable level of control regarding decisions made in their classrooms (87.4%) and schools (71.2%), less than half of the sample (45.6%) thought that their job descriptions were flexible. This material is summarized in Appendix B5.

School atmosphere. The results suggest that most teachers (83.6%) view their relationships with administrators in a positive light. Further, a strong majority of teachers view their schools as being positive and productive (84.5%), relaxed and comfortable (78.7%) and open to new ideas (81.6%). Approximately 29.5% of teachers agreed that they felt isolated from their colleagues. This material is summarized in Appendix B6.

Practical factors. The majority of teachers (89.8%) felt that they had adequate job security and sufficient time for holidays and vacations (86.5%). Slightly more than half of the sample (57.2%) agreed that they were afforded adequate benefits, and approximately one-third of the respondents (35.5%) agreed that they received proper compensation for their work. Clearly, the majority of teachers (69.5%) felt that they were not receiving adequate tangible support for the work. This material is summarized in Appendix B7.

Perceptions Regarding Negative Work-Related Stressors

The large number of items in this domain (n=43) were partitioned a priori into the following three sections in the actual survey: (a) Difficulty and Complexity of Teaching (e.g., "preparing for, and carrying out parent-teacher conferences"); (b) Increasing Workload and Expectations Faced by Teachers (e.g., "the time spent marking students' work or providing feedback to students"); and (c) Dissatisfaction with Resources (e.g., "using your own money to buy resources, such as print resources and classroom supplies"). These categories were created in order to lend a sense of cohesion and order to this domain of the survey. It is acknowledged that these are artificial categories and that arguments could be made regarding the differential placement of items within a category (e.g., the item, "increased numbers of English as a second language students in the classroom" could be viewed as a complexity of teaching, but also a factor associated with increased workload).

Appendix C1 summarizes the descriptive data regarding the participants' ratings of agreement for the first category of items (i.e., Difficulty and Complexity of Teaching). Similarly, Appendix C2 summarizes the data for those items in the second category (i.e., Increasing Workload and Expectations Faced by Teachers), while Appendix C3 presents the data for items within the final category (i.e., Dissatisfaction with Resources). The items in Appendices (C1 through C3) are listed in descending order, according to the mean ratings of agreement.

The results of the thematic analyses of the two open-ended questions are presented in Appendix C4 (i.e., our participants' most salient work-related stressors, N = 716 valid responses) and Appendix C5 (i.e., the worst teaching-related experience reported by our participants, N = 636 valid responses). Frequency data are provided within the appendices that express the number of times a given theme was mentioned by participants. It must be underscored that the frequencies do not reflect the number of participants who identified a given theme. Rather, the frequency data reflect the number of times a given theme was mentioned, as many participants provided multiple responses that fell within the same theme (e.g., one participant may have generated multiple responses related to meeting the diverse needs of students). Given space limitations, representative quotes within the identified themes will be published elsewhere.

Impact of work-related stress on personal lives. Descriptive data for items pertaining to the perceived impact of work-related stressors on the personal lives of participants (i.e., negative impacts on personal relationships and interests) are presented in Appendix C6. The items are listed in descending order, according to the mean ratings of agreement.

Perceptions Regarding Positive Aspects of Teaching

Descriptive data for our participants' ratings of agreement or disagreement with items regarding positive aspects of teaching are summarized in Appendix D1. The items in Appendix D1 are listed in descending order, according to the mean ratings of agreement. The results of the thematic analyses of the two open-ended questions are presented in

Appendix D2 (i.e., positive aspects of teaching, N = 692 valid responses) and Appendix D3 (i.e., the best teaching-related experience reported by our participants, N = 615 valid responses). Again, frequency data are provided within the appendices that express the number of times a given theme was mentioned by participants. Given space limitations, representative quotes within the identified themes will be published elsewhere.

Satisfaction with career and current position. Descriptive data for items pertaining to the participants' satisfaction with their chosen career and current position are presented in Appendix D4. The items are listed in descending order, according to the mean ratings of agreement. One striking finding was that approximately half of the teachers in this sample (51.3%) agreed that if they were aware of a viable career alternative, they would pursue it and leave their current positions.

Health

Burnout. Data from the MBI-ES were scored and interpreted according to the recommended guidelines (Maslach et al., 1996). Appendix E1 displays the frequency data for the level or degree of impairment (i.e., low, moderate, or high) experienced within each of the three dimensions of burnout. Readers are reminded that participants were only classified as experiencing high levels of professional burnout if their responses produced the following combination of results: high levels of emotional exhaustion and depersonalization, combined with low levels of personal accomplishment. The results revealed that 17 participants (i.e., 2% of the sample) reported high levels of professional burnout.

Physical and mental health. Data generated from the SF-36 v.2 (Ware et al., 2000) were carefully scored and interpreted according to the recommended guidelines. Norm-based T-scores (i.e., with a mean of 50 and a standard deviation of 10) for the eight subscales and two summary scales are presented in Appendix E2.

Chronic pain. Frequency data regarding the prevalence of chronic pain problems in our sample (n = 742) indicated that 238 participants (31.9%) experienced an ongoing pain problem. When examining the reported duration of our participants' chronic pain problems, a subset of responses

(n = 36) were unusable (e.g., describing the duration as "seems like forever"). Using data from those chronic pain sufferers who included usable data regarding the duration of their chronic pain problems (n = 202 individuals), the following results were obtained (n. %): 3 to 6 months (n = 14.6.9%): 6 months to 1 year (n = 13, 6.4%); 1 to 5 years (n = 65, 32.1%); 6 to 10 years (n = 60, 29.7%); more than 10 years (n = 50, 24.8%). Frequency data regarding the location of chronic pain problems yielded the following results: back pain (n = 133, 56%); neck and shoulder pain (n = 114, 48%); leq pain (n = 51, 21%); arms and hands (n = 39, 16%); hips (n = 28, 12%); feet (n = 27, 11%); head (e.g., "jaw," "headaches," "migraines"; n = 25, 11%); torso (i.e., chest, ribs, abdomen, pelvis; n = 17, 7%); non-specific (e.g., "joints"; n = 10, 4%). Results generated from the Box 21 (Jensen et al., 1998), revealed that our participants were experiencing low-to-moderate pain severity in reference to: (a) the day the survey was completed (M = 35.89, SD = 25.90); and (b) the last seven days (M = 44.67, SD = 26.76).

Somatic complaints and diagnosed illnesses. Data regarding the somatic complaints and diagnosed illnesses, generated by the Teacher Somatic Complaint and Illness Inventory (TSCII; Belcastro, 1980), are presented in Appendices E3 and E4, respectively. When participants were asked to specify any other illnesses that they had been diagnosed with (i.e., illnesses apart from the 12 illnesses identified using the TSCII), a total of 340 additional illnesses were reported by 331 participants, and were grouped according to the major diagnostic categories within the International Statistical Classification of Diseases and Related Health Problems, Tenth Revision (ICD-10: WHO. 2007). The frequency data for each of the major diagnostic categories are presented in Appendix E5.

In order to simplify the task of summarizing all of the illnesses reported by participants, the specific illnesses listed in Appendix E4 (i.e., identified using the TSCII) were added to the additional illnesses reported by participants in Appendix E5, resulting in a final aggregate list of illnesses (Appendix E6).

Impact of work-related stress on health. Descriptive data for the participants' ratings of the impact of work-related stress on health are summarized in Appendix E7. In addition, 182

participants reported that they had been diagnosed with physical, mental, or emotional illnesses (n = 298 illnesses in total) by a health professional (e.g., a doctor or a registered psychologist) that were likely related to their work as teachers (in the opinion of their health professional). The illnesses were categorized using the ICD-10 (WHO, 2007) in order to determine which types of health problems were most prevalent. The frequency data for each of the major diagnostic categories are presented in Appendix E8.

The number of days off taken due to illness in the past year by participants (n = 722) yielded the following frequency data: 0 days off (n = 87, 12.0%); up to 5 days (i.e., 1 week; n = 431, 59.7%); between 6 and 10 days (i.e., 1-2 weeks; n = 132, 18.3%); between 11 and 15 days (i.e., 2-3 weeks; n = 26, 3.6%); between 16 and 20 days (i.e., 3-4 weeks; n = 21, 2.9%); 1-2 months (n = 11, 1.5%); more than 2 months (n = 14, 1.9%).

Work Engagement

The UWES yielded the following results for the three subscales and the total score: vigor (M = 4.46, SD = 0.83), dedication (M = 4.84, SD = 0.84), absorption (M = 4.61, SD = 0.84), and total score (M = 4.63, SD = 0.75). Further, estimates of internal consistency yielded Cronbach alpha values of .79 (vigor), .84 (dedication), and .78 (absorption). When compared with the normative sample for the UWES (Schaufeli & Baker, 2003, p. 36), our sample of teachers reported: average levels of work-related vigour and overall work engagement; moderate-to-high levels of work-related dedication; and high levels of work-related absorption.

Work-Related Commitment

Descriptive data and reliability estimates (i.e., Cohen's alpha) were calculated for the three subscales of both measures of work-related commitment (i.e., the Three Component Model and the Occupational Commitment Scale). The results are presented in Appendix F.

Intentions Regarding Retirement

In general, there was little variation in the intended retirement age of participants in this sample. Based on 728 valid responses, 688 participants (i.e., 95% of our sample) indicated the intention to retire between the ages of 50 and 60, or exactly at age 65. Descriptive data for the items regarding retirement intentions are summarized in Appendix G.

Discussion

The present survey was conducted to gather information regarding the work life and health of teachers (K-12) from two urban centres in Saskatchewan, Canada. The conclusions within each broad domain of our survey are outlined first and placed in context alongside the findings from parallel studies conducted in Canada and abroad. Following this, a general summary is presented that weaves our findings together and highlights central themes that emerged.

Perceptions of the Workplace

Recognition from others. A strong majority (i.e., 75% or more) of teachers in this sample agreed that they received adequate recognition from their friends and family, colleagues, administrators, and students. Still, approximately one in four teachers did not feel adequately recognized for their contributions by their administrators and students. Of greater concern were the findings that only 62% and 39% of teachers in our sample agreed that they received adequate recognition from the parents of their students and their communities (or society in general), respectively. This is problematic as it suggests that teachers believe that key stakeholders are failing to recognize the value of their professional contributions, especially in the context of an increasingly complex and demanding educational landscape. The factors that contribute to this disconnect are likely complex, but our findings suggest that more work needs to be done to educate certain stakeholder groups about the realities of the work life and workload of teachers, the impact that teaching has on the lives of teachers, and the importance of effectively communicating recognition, respect, and appreciation to teachers. When teachers feel recognized and respected for their professional contributions, they are likely to feel more committed to their work (Louis, 1998), which may, in turn, be linked with other positive outcomes (e.g., enhanced job satisfaction, reduced attrition rates).

Collegial support. Our findings suggest that the majority of teachers in our sample (i.e., 90%) believed that they received adequate support from their colleagues. Fewer teachers in our sample believed that they received adequate support from their administrators (77%) and their provincial teachers' federation (61%). The perception of a lack of support from administrators is a significant problem as it has been linked to job dissatisfaction and turnover among teachers. Therefore, it may be beneficial for administrators and teachers' associations to solicit more information from teachers about how to improve the nature and extent of the collegial support that is extended.

Feedback. The majority of our participants indicated that they received adequate feedback about their work from their colleagues (77%) and students (69%). However, fewer teachers in our sample felt that they received adequate feedback from administrators (66%), the parents of their students (55%), and their communities or society in general (30%). Those teachers who carry out their professional responsibilities without receiving adequate constructive feedback from key stakeholders may experience a feeling of detachment from their work (Louis, 1998) or a sense of uncertainty or apprehension about their performance. They may be left wondering if they are meeting the expectations of key stakeholders (e.g., administrators, parents of their students) or perhaps missing opportunities to address actual or perceived problems and build on professional strengths.

Job-related control. Although most teachers in our sample agreed that they were able to exercise adequate influence or input with regards to decision-making in their classrooms (87%) and in their schools (71%), less than half of our respondents (i.e., 46%) agreed that their job descriptions were flexible (i.e., they did not think that they were able to change their duties or the type of work they did). Overall, one could interpret these findings in the following way: Although the perception of inflexible job descriptions likely

reflects the fact that what teachers do is often constrained by their professional responsibilities (i.e., teachers are required to follow set curricula and carry out assigned duties in assigned spaces, at assigned times), teachers are still able to exercise control over how they perform their duties within their classrooms and schools. In addition, most teachers (81%) appreciated the opportunities they had for professional growth or development. This makes intuitive sense, given that the availability of opportunities for teachers to learn and grow as professionals may help to ameliorate their perceptions of inflexibility or stagnancy in their job descriptions. Ensuring that teachers have the opportunity to participate in the decision-making that affects their classrooms and schools, along with providing opportunities for professional growth and development, are important factors in enhancing job-related satisfaction, self-efficacy, and retention (Allensworth et al. 2009; Hirsch & Emerick, 2007; Ingersoll, 2001; Louis, 1998).

School atmosphere. Overall, our results suggest that most of our respondents generally were pleased with their working environments. They perceived their schools as being positive and productive places to work (85%), relaxed and comfortable (79%), and open to new ideas (approximately 82%). Perceptions of the tenor of interactions with administrators were similarly optimistic, as most teachers viewed these relationships in a positive light (approximately 84%). In contrast to these encouraging findings, our results indicated that approximately one-third of our respondents indicated that they felt isolated from their colleagues. This is problematic as previous research has indicated that feelings of isolation among teachers, especially among those at the start of their careers, may lead to dissatisfaction and attrition (Heider, 2005).

Practical factors. Not surprisingly, most teachers in our sample felt that they had adequate job security (90%) and sufficient time for holidays and vacations (approximately 87%). Slightly more than half of the sample (approximately 57%) agreed that they were afforded adequate benefits. Although Canada is a country that offers its citizens universal health care, our sample of teachers clearly felt that additional benefits were warranted. Finally, 70% of our sample of teachers felt that their compensation was inadequate. This result was not surprising given that teachers in this sample

reported that they routinely log an average of eight extra hours (i.e., one whole day) of unpaid work at home each week (over and above their standard workweek), while managing a wide variety of work-related stressors in a complex and constantly evolving educational landscape. Dissatisfaction with remuneration is a common issue among teachers from other Canadian and international jurisdictions.

Negative Work-Related Stressors

Quantitative findings. To identify those negative work-related stressors that were most salient for our sample, we used two approaches that involved identifying those stressors that were: (a) ranked most highly (i.e., yielding arithmetic means of 5 or higher on our 6-point response scale that measured agreement) or (b) endorsed most widely (i.e., by a consensus of 90% or more of our respondents). According to the first criteria, the most salient negative work-related stressors were (in descending order): (a) taking on multiple roles (e.g., feeling as though one is acting as a parent, social worker, counsellor); (b) students with behaviour problems; (c) increasing expectations and responsibilities from multiple sources (e.g., government, administration, colleagues, parents, students, the community); (d) more students with special needs in the classroom; (e) the volume of one's teaching workload; (f) seasonal reporting pressures; and (g) not having enough time to do one's work. When using the second criteria, the same general pattern of results was obtained (note: minor changes were noted in the ordering of the first three stressors). Overall, our findings suggest that teachers are struggling to manage the increasingly complex expectations of numerous stakeholders. Perhaps as a reflection of this struggle, our respondents indicated that they felt as though they had to take on additional roles that went above and beyond their responsibilities as educators. In the simplest terms, our respondents were communicating the following: teachers cannot be all things to all people. It seems reasonable to suggest that at a societal level, we need to regularly re-examine and re-define the critical roles and functions of teachers in an effort to identify not only what is possible in terms of teachers' contributions to society in an ideal sense. but what is reasonable.

Our sample of respondents also expressed concerns regarding their perceptions of an increase in the number of students with behaviour problems and other special needs in their classrooms. In a general sense, this finding further reflects the fact that teachers are feeling overextended and overwhelmed by some aspects of their professional responsibilities. If one interprets this finding in a more literal sense, it suggests that teachers may benefit from additional resources to help them manage certain challenging aspects of their interactions with students. For example, some teachers may appreciate additional professional development opportunities that help them to conceptualize and manage problematic student behaviour in different and perhaps more effective ways. In addition, teachers may benefit from additional supports in the classroom that allow them to work more effectively with students who have special needs.

Finally, our respondents clearly stated that they simply did not have enough time to negotiate the sheer volume of their professional responsibilities, especially at peak times during the year (e.g., reporting periods). Other findings from this study tend to support these assertions (e.g., teachers reported that they log an average of eight additional hours every week on work-related activities outside of their standard workweek).

Qualitative findings. The written responses from our participants regarding negative work-related stressors clearly supported the quantitative results summarized above. The most frequently identified categories and subcategories of work-related stressors were related to workload concerns (e.g., overwhelming workloads, large class sizes, constant changes in duties and responsibilities with inadequate resources) and problems with students (e.g., behaviour problems and disrespect, working with students who have special or diverse needs). The convergence of the qualitative and quantitative findings lends support to the validity of the results.

Worst Experiences

When participants were asked to provide written responses regarding their worst experiences as a teacher, a different pattern of results emerged. Specifically, the three most frequently mentioned categories of responses were (in decreasing

order): problems with parents, administrators, and students. The responses regarding parents described situations involving verbal abuse, unfair criticism and threats, ongoing harassment, and a lack of support (e.g., parents' lack of support for their children's education, failing to introduce reasonable consequences for unacceptable behaviour). Clearly, well-thought-out policies and procedures that guide interactions between parents and teachers should be created and followed. Ideally, these policies and procedures would behaviourally define acceptable and unacceptable verbal and physical conduct, while clearly communicating subsequent actions or penalties for infractions conducted by either party. All parties (i.e., parents, teachers, administrators) might even be required to sign off on a written agreement that outlines the agreed-upon policies and procedures). Infractions by parents may result in the restructuring of future parent-teacher interactions (e.g., requiring that another teacher or the principal be included in all subsequent exchanges) or even legal action (e.g., in cases where parents verbally or physically threaten or assault teachers). Many of the written responses of teachers in our survey regarding their worst experiences that involved parents occurred when teachers were alone in a room with parents (e.g., during parent-teacher conferences/meetings), or when teachers spoke with hostile and threatening parents on the phone. Concrete examples of policies and procedures that are designed to enhance the safety of teachers might include structuring parent-teacher conferences such that no teacher is ever alone in the room with a parent. and requiring teachers to document the content of inappropriate phone calls from parents. Safeguards and codes of conduct such as these would be valuable for all teachers, regardless of how long they have worked in the profession.

The majority of the responses that outlined difficulties with administrators described principals or vice-principals who failed to support teachers at critical points in time when they genuinely needed leadership and assistance. Teachers also described administrators who unilaterally forced them to accept substantial changes in their work environments (e.g., transfers to new schools) or duties (teaching new courses outside their areas of specialization), often without adequate time to adjust or prepare for these transitions. Providing

teachers with greater input regarding important decisions that affect their work environments and duties would be beneficial, coupled with a more transparent system of "checks and balances" that would temper and limit the power of administrators.

When teachers mentioned students in their accounts of their worst experiences on the job, they mostly described situations involving physical abuse or violence, verbal abuse or threats, and general behaviour problems. Again, teachers and students should be required to strictly adhere to explicitly defined codes of conduct, and the costs and penalties associated with transgressions of these codes should be regularly reviewed and enforced. In many cases, teachers in our survey reported that verbal and physical threats or abuse from their students occurred without any subsequent penalties, even though they brought their concerns forward to their administrators and the parents of the students. Ultimately, if teachers do not feel that their concerns are being taken seriously (i.e., if no consequences are imposed when students clearly threaten or abuse them), the resulting futility of the situation may leave them feeling vulnerable, frightened, frustrated, and worst of all, helpless.

It is important to remember that our sample of teachers did include 138 teachers who described their professional roles as "specialists" (which included a subset of individuals working in special education). We note this as some of the instances of physical abuse (n = 85 in total) may have occurred in the context of working with students with special needs. By pointing this out, our intention is not to downplay or minimize the traumatic impact of any instance of physical abuse, but to provide additional context for the frequency of instances of physical abuse reported by teachers in this study.

Another caveat to our discussion of the worst experiences of teachers is that the observed frequency of certain categories of worst experiences should not be equated or confused with the personal relevance or lasting emotional impact of those experiences. For example, although certain categories of our teachers' worst experiences were observed less often (e.g., cases of child abuse/neglect, student accidents, deaths, or suicides) these types of experiences would nevertheless have a considerable impact on the lives of the particular teachers involved.

Impact of Work-Related Stress on Personal Lives

The majority of our participants indicated that the demands of their work as teachers had a negative impact on their ability to pursue personal interests (78%), their family lives (69%), their relationships with their spouses/partners (64%), and friends (55%). Our findings are similar to those of Harvey and Spinney (2000) who reported that their sample of teachers felt that their work was negatively affecting their personal lives, forcing them to neglect family, friends, and even sleep.

Positive Aspects of Teaching

Quantitative findings. Those positive aspects of teaching that were ranked most highly (i.e., those items with arithmetic means of 5 or higher on our 6point response scale that measured agreement) were: (a) seeing students learn and grow; (b) working with students (young people); (c) feeling that one's work as a teacher is important to society (i.e., making a difference by educating future citizens); (d) reflecting on memorable and rewarding professional experiences; (e) being a part of the unexpected success of challenging students: (f) enjoying the excitement of the classroom; and (g) enjoying the opportunity to work with diverse students (including those students with special needs). These same aspects of teaching were endorsed by 90% or more of our participants, with one addition: having opportunities for professional development.

In general, our sample of respondents appears to be drawn to the profession of teaching for several interrelated reasons. Similar to findings from previous research (e.g., Brunetti, 2001; Schaefer, 2003; STF, 1995), teachers in this sample viewed the growth and progress of students to be a salient benefit of their work. However, the benefits of teaching that were reported by our participants went beyond mere interactions with children and adolescents and emphasized the higher ideals and aspirations of teaching. Namely, our participants recognized that they have been entrusted with one of the most solemn and crucial roles in shaping our society: educating our children, including those with special needs, to become knowledgeable and responsible citizens. Moreover, our findings indicated that teachers in our sample were not interested in becoming stagnant in their work. Rather, our participants appeared to be highly motivated to continue growing as teachers via professional development opportunities. Continuing to offer teachers opportunities for professional development is critical, especially given the fact that teachers are directly expressing concerns over the increasingly complex demands that are being placed upon them.

Qualitative findings. Our participants' written responses regarding the benefits of teaching confirmed our quantitative results and revealed additional valuable information. Beyond the benefits of connecting with students and making a difference in society, our participants voiced an appreciation for their opportunities to collaborate with dedicated and supportive colleagues. These interactions contribute to a sense of professional community among teachers as they work together toward common ends. It also reflects the fact that teachers in our sample value and appreciate their colleagues.

Another key result within our qualitative findings is that teachers appreciate the opportunity to experience variety and diversity in their work. Although teachers may be required to follow set curricula, they nonetheless welcome opportunities to move beyond their defined responsibilities and take on new and exciting challenges. In a related sense, our participants also valued greater autonomy, freedom and flexibility in their work. Together, these benefits noted by teachers in our sample (i.e., opportunities for new challenges in the context of work-related autonomy) are encouraging as they are linked to job satisfaction and the retention of teachers. To the greatest extent possible, the work lives of teachers should be constructed to allow for maximum flexibility and opportunities for new and creative professional contributions. This aim should not be at odds with the continual goal of teaching set curricula as teachers may be encouraged to continually re-invest themselves in educational opportunities and career paths that challenge and re-energize them.

Finally, it is important to recognize that teachers are clearly expressing their appreciation for those times when they have been acknowledged or praised for their service by their students, the parents of their students, colleagues and administrators, and society in general. As indicated previously, 62% and 39% of our participants

indicated that they felt that they had been adequately recognized for their work as teachers by the parents of their students and society in general, respectively. Ultimately, there appears to be a disconnect between the general recognition that teachers would appreciate for their contributions and what is offered by certain stakeholders. It is possible that greater efforts could be made to encourage certain groups (e.g., parents and groups at the level of the community or larger society) to express their genuine appreciation for the work of teachers when they feel moved to do so. Obviously, the act of taking a moment to honestly express sincere appreciation for a teacher's efforts can have a substantial positive impact without ever costing a cent.

Best Experiences

When relating the best experiences of their careers, many teachers in our sample commented on the emotional salience and lasting impact of instances where students and others expressed their heartfelt thanks and appreciation for the teachers' hard work, unflagging support, persistence, and dedication. Anecdotally, one teacher fondly remembered being invited to a former student's wedding many years after he had graduated. When the teacher asked the student why she was invited to the wedding and acknowledged as a guest of honour, the student told her that it was because she believed in him at a challenging and critical time in his development. This exchange left an indelible mark on the teacher and was cherished as a highlight of her career.

Generally speaking, the teachers in our study warmly remembered those instances in which they made a direct contribution to the success of students. A tremendous amount of personal satisfaction was derived by teachers in our sample from watching cohort upon cohort of students graduate and go on to succeed in life.

Satisfaction With Career

The overwhelming majority of our participants (98%) indicated that they had a passion for teaching, looked forward to going to work (89%), and were satisfied with their jobs (87%). Again, this supports the notion that our sample of respondents was comprised of teachers and administrators who

were highly enthusiastic and positive about their chosen profession. These findings were tempered by our results that suggested that although most of our participants (78%) agreed that they would choose the teaching profession if they "had to do it all over again," half of our sample (i.e., 51%) indicated that if they were aware of a viable career alternative, they would pursue it and leave the profession. Although these findings regarding workrelated satisfaction may seem at odds (i.e., feeling passionate about teaching while agreeing with the idea of leaving the profession), the results can be interpreted in a coherent way. Specifically, although virtually all of our respondents were clearly passionate about teaching as a profession, the often harsh realities of the job (i.e., perceptions of excessive workloads, unreasonable demands and expectations, and the negative impact of workrelated stress on the personal lives of our participants) may be forcing a growing majority of teachers to reconsider their willingness to remain in the profession. Our findings are entirely consistent with previous research conducted by Dibbon and Sheppard (2001) that indicated that "almost 50% of new teachers are giving consideration to leaving their current position because of reasons related to heavy workload, a stressful teaching environment and a lack of opportunities for advancement and pay increases (p. 125)."

Health

Burnout. Although our results revealed that a small minority of teachers (i.e., n = 17, approximately 2% of the entire sample) were experiencing high levels of burnout (i.e., according to the Maslach Burnout Inventory-ES; Maslach et al., 1996), it seems reasonable to suggest that one would not expect high prevalence rates in our sample. Common sense dictates that those teachers who fall in the high burnout category would likely leave the profession outright, take a disability leave, or at the very least, be less likely to fill out a survey relating to their jobs.

It is important to remember that our use of the MBI-ES (Maslach et al., 1996) revealed those participants with high levels of the *construct* of burnout, according to the scoring procedures and objective cut-off values of the measure. However, a more fine-grained analysis of the item content of the MBI-ES revealed one item that directly asked

respondents to indicate how often they felt burnt-out from their work. Our results indicated that 5% of our participants reported feeling burnt-out from their work on a daily basis, with an additional 13.3% indicating that they felt burnt-out a few times a week. This suggests that while a modest percentage of our sample met the objective criteria for high levels of burnout as defined by the MBI-ES, just fewer than 20% of our participants reported feeling burnt-out on a regular basis.

General physical and mental health. The results obtained from the SF-36 v2 provided a general estimate of the physical and mental health of our participants. When examining the physical component summary T-score, and the T-scores of the constituent physical health subscales (i.e., the physical functioning, role-physical, bodily pain, and general health subscales), one may argue that our sample of respondents fell within the average range when contrasted with the instrument's normative comparison sample (i.e., a representative sample of the general population). In contrast, the mental component summary T-score, and T-scores of the separate mental health subscales (i.e., the vitality, social functioning, role-emotional, and mental health subscales) were below average by up to one-half of a standard deviation, in reference to the normative comparison sample. The subscales with the lowest T-scores (i.e., the role-emotional and social functioning subscales) indicated that our participants were experiencing interference with their work, daily activities, and normal social activities due to emotional problems (i.e., feeling depressed or anxious). Although it is not possible to draw causal conclusions about the source of the emotional problems of our participants (i.e., whether or not their feelings of depression or anxiety were linked to their work as teachers or aspects of their personal lives), our findings suggest that our participants may benefit from additional supports (e.g., counselling services, wellness programs) that are designed to enhance mental health and well-being.

Chronic pain. Our results revealed that 238 participants (i.e., 32% of our total sample) reported an ongoing pain problem lasting three months or more. In comparison, data from the 1994-95 National Population Health Survey (NPHS) in Canada indicated that 13% of adults aged 25 to 44, and 21% of adults aged 45 to 64 experienced

chronic pain lasting six months or more (Millar, 1996). More recent estimates of the prevalence of chronic pain in Canada in 2004 suggest figures ranging from 17% to 25% to 33% for adults aged 18 to 34, 35 to 54, and 55 years and over, respectively (Boulanger, Clark, Squire, Cui, & Horbay, 2007). Although direct comparisons are difficult to make due to methodological differences in studies that assess the prevalence of chronic pain, our results suggest that the prevalence of chronic pain in our sample is roughly equal to other national estimates.

When examining the reported duration of our participants' chronic pain problems, a subset of responses (n = 36) were unusable (e.g., describing the duration as "years"). Using data from those chronic pain sufferers who included usable data regarding the duration of their chronic pain problems (n = 202 individuals), the following results were obtained: 3 to 6 months (n = 14, 6.9%); 6 months to 1 year (n = 13, 6.4%); 1 to 5 years (n = 65, 32.1%); 6 to 10 years (n = 60, 29.7%); more than 10 years (n = 50, 24.8%). When examining the duration of moderate to severe chronic non-cancer pain problems in a national sample, Boulanger et al. (2007) reported the following: less than one year (31% of the sample), 1 to 4 years (42%), 5 to 9 years (15%), and 10 or more years (12%). Although the percentages of individuals experiencing chronic pain for varying durations differ between our study and the national estimates reported by Boulanger et al., these differences should be interpreted with caution as the national survey included older adults, whereas the present study did not include anyone over the age of 61 years. Regardless, our results indicate that most of our participants with chronic pain (75%) experienced ongoing pain problems for up to 10 years.

The most common chronic pain sites within our sample were the back, neck and shoulder, and legs. Similar to our results, other regional and national studies of chronic pain in Canada revealed that the back, knees, neck, and head were among the most common chronic pain location sites (e.g., Birse & Lander, 1998; Boulanger et al., 2007).

Finally, our findings indicated that our respondents were experiencing low-to-moderate pain severity in reference to the day the survey was completed and the previous seven days. Overall, our findings suggest that a substantial

proportion of our sample (approximate one-third) experienced a pain problem of low-to-moderate severity. It is possible that the work of teachers may have contributed to the chronic pain problems that were reported, but further longitudinal research would be necessary to examine causal relationships. From an anecdotal standpoint, a small number of participants did suggest causal links (e.g., "arthritis between thumb and wrist on both hands due to tight grip on pencil [chalk] to print and write neatly for primary students"). Regardless, it seems that teachers may benefit from occupational health services (e.g., safe lifting seminars, ergonomic evaluations of desk and workstation configurations) and resources (e.g., orthotics, moving equipment) that may help them to minimize or avoid chronic pain problems.

Diagnosed illnesses and somatic complaints.

The most common illnesses reported by participants were diseases of the digestive system (e.g., ulcers, irritable bowel syndrome, acid reflux), diseases of the nervous system (e.g., migraines, multiple sclerosis, epilepsy, carpal tunnel syndrome, sleep apnoea), mental and behavioural disorders (e.g., problems with anxiety, depression, and sleep), diseases of the circulatory system (e.g., hypertension, irregular heartbeat, stroke, circulatory problems), neoplasms (i.e., mostly benign growths and a small number of malignant tumours), and diseases of the musculoskeletal system and connective tissue (e.g., neck/back pain, arthritis). Although it is not possible to discuss causal relationships in the context of the present study, it is argued that work-related stress may be linked to the types of health problems experienced by the teachers in our study (e.g., diseases of the digestive system, mental and behavioural disorders, diseases of the circulatory system). In fact, a large body of previous research supports a linkage between poor health and psychosocial and organizational factors at work (e.g., Bongers, de Winter, Kompier, & Hildebrandt, 1993; Carayon, Smith, & Haims, 1999; Mayer, Naliboff, Chang, & Coutinho, 2001; Melchior et al., 2007; Michie & Williams, 2003; Moon & Sauter, 1996; Sparks, Cooper, Fried, & Shirom, 1997; Sauter & Murphy, 1995; Tennant, 2001; Theorell & Karasek, 1996). It is noted that our results are consistent with other, large-scale studies examining the links between health problems and work. For example, a population-based survey of individuals in Great Britain who were unable to work

because of health problems revealed that the most prevalent types of illnesses (according to the International Classification of Disease – Tenth Revision; ICD-10) (World Health Organization, 1992) were: (a) diseases of the musculoskeletal system and connective tissue; (b) mental and behavioural disorders; and (c) diseases of the circulatory system (Office for National Statistics, 1997 as cited in Griffiths, 1998).

The most prevalent somatic complaints among our participants (i.e., those indicated by 50% or more of our participants) in the year prior to the survey were colds/flus, sleep problems, headaches, sore throats, and back pain. These somatic complaints are likely a reflection of the everyday realities of teachers (e.g., greater exposure to students with symptoms common to colds/flus). The high prevalence of back pain complaints does suggest that teachers may need additional assistance in learning proper lifting techniques or additional benefits that promote postural and skeletal alignment/health (e.g., orthotics for teachers who are on their feet for extended periods of time, chiropractic treatments, subsidized gym memberships to enhance physical fitness, massage therapy).

Impact of work-related stress on health.

Again, although it is not possible to discuss causal relationships in the context of the present study, it is possible that the negative realities of teaching (i.e., increasing workloads and expectations) may be finding outward expression in the mentioned physical and mental health problems of teachers. The likelihood of this possibility is bolstered when considering that when our participants were asked if they were ever diagnosed with an illness, by a health professional, that was likely work-related (in the opinion of the health professional), mental and behavioural disorders were mentioned most often. It is generally accepted by researchers and clinicians alike that these kinds of health problems (i.e., difficulties with anxiety, depression, and sleep) are commonly associated with work-related stress (e.g., Melchior et al., 2007; Michie & Williams, 2003; Tennant, 2001). Summaries of other largescale, population-based studies (e.g., Griffiths, 1998) have yielded similar findings regarding the links between work-related stress and problems with stress, anxiety, and depression, especially among teachers and nurses (e.g., Griffiths, 1998). Again, it was not possible, within the boundaries of this study, to verify the diagnosed illnesses reported by our participants, or the opinions of their health professionals. Regardless, if the information provided by participants is taken at face value, then it does suggest that both teachers and their health professionals are acknowledging that the burdens of teaching appear to be having deleterious effects on the health of teachers.

Further evidence that teachers may be sacrificing their physical and mental health in service of their professional responsibilities may be drawn from our findings that most teachers in our sample (84%) agreed that they often worked when ill and that they had become ill due to work-related stress (61%). Similarly, most of our participants (61%) disagreed that they had taken time off work due to work-related stress. These findings paint a familiar yet troublesome picture that many teachers may recognize: the image of a stressed teacher who is sick yet unwilling to take time off to heal. Findings from this study do suggest that teachers generally use their sick days sparingly. Our findings indicated that over 70% of our participants took anywhere from zero to five days off (i.e., one week) due to illness in the past year.

Anecdotal reports from teachers and administrators suggest that teachers may commonly go to great lengths to avoid taking time off for "minor" illness for various reasons (e.g., knowing that other teachers may be called upon to assume the sick teacher's responsibilities, formally arranging for a substitute teacher involves considerable preparation – providing lesson plans and materials – not to mention the additional effort required to "catch up" once the regular teacher is well again and returns to the classroom). It seems reasonable to suggest that the varied reasons teachers have for not taking sick days must be identified, and systemic changes should be implemented that address these barriers.

Work Engagement

It is arguable that the average levels of workrelated vigour and engagement reported by our sample of teachers may simply reflect the fact that they felt drained by the increasingly complex and demanding nature of their work. If our participants were struggling to keep pace with the constantly evolving, multi-faceted demands that beset the teaching profession, it makes sense that they might feel less energetic about their work, less resilient or persistent when confronted by setbacks, and less willing to invest effort into their jobs. However, in keeping with characterizations of teaching as a "calling," the participants in our sample still experienced a strong sense of immersion in their professional lives, and moderate-to-high levels of enthusiasm for work that inspires and challenges them on a continual basis.

When taken together, the findings above regarding work engagement paint a picture that combines elements of optimism and concern. Although teachers may be absorbed by, and dedicated to, their work, their stores of energy and resilience may only be adequate at best, which raises concerns about how far teachers may go in their careers before critical problems arise (e.g., mental and physical health problems, long-term disability leaves, attrition).

Work-Related Commitment

An optimal profile of results was observed across the three subscales of organizational commitment (i.e., commitment to the schools where our teachers were employed). More specifically, teachers in our sample communicated a strong affective commitment to their profession, moderate levels of normative commitment, and lower levels of continuance commitment. This suggests that our teachers likely remained at their respective schools to a large degree because they wanted to do so, to a moderate extent because they felt they *ought to*, and least of all because they felt they had to. Again, this is a desirable outcome as it indicates that teachers are likely performing at high levels to promote the continued success of their schools.

In contrast, the profile of results for the three subscales of occupational commitment (i.e., commitment to the occupation of teaching) suggests a pattern that warrants optimism and a small measure of concern. Although teachers in our study exhibited high levels of affective commitment to their profession and low levels of normative commitment, they also expressed high levels of continuance commitment. In a positive sense, this indicates that teachers in our sample were staying in the profession largely because they

wanted to and not because they felt they ought to do so. In a negative sense, however, it suggests that teachers in our study were also staying in the field because they felt they had to. Overall, it is arguable that the pattern of results regarding occupational commitment may suggest that teachers were experiencing a form of "conflicted or ambivalent attachment" with the teaching profession; although teachers in our sample were positive and enthusiastic about their chosen field, they felt that the realities of leaving the profession would be too difficult, impractical, or costly for them. It is certainly understandable that after one spends enough time in a profession, it may become difficult to leave, especially when weighing the considerable costs of a career change. Ultimately, the fact that teachers in our sample largely felt that they had to remain in the profession is a potential concern, as some of the undesirable consequences of feeling "trapped" in a job include less-than-optimal levels of performance, doing only what is necessary to retain one's position, and even leaving the job or profession entirely (Meyer & Allen, 2004). While it would be extremely difficult to make the argument that teachers in our sample were not working hard or "going the extra mile" on the job (i.e., given our findings that teachers in our sample reported putting in, on average, an additional day's worth of unpaid work each week at great sacrifice to their personal lives), they were likely "at risk" for leaving the profession if presented with other attractive career opportunities. This is not mere speculation given that half of our sample of teachers indicated that if they were aware of a viable career alternative, they would pursue it and leave the profession.

Intentions Regarding Retirement

The vast majority of teachers in our study (i.e., 95%) stated that they intended to retire between the ages of 50 and 60, or once they reach the age of 65. A more detailed examination of our participants' retirement intentions revealed that approximately one-third of our participants indicated that they intended to retire early (i.e., 37% of our sample), had made preparations to do so (34%), and were committed (29%) to retiring early. This suggests that the majority of teachers in our sample expected to continue in their positions until at least the age of 65, and perhaps

longer given recent changes to *The Saskatchewan Human Rights Code* such that it no longer enforces mandatory retirement at age 65. Although these results are prospective in nature, and therefore subject to considerable change as time unfolds, they may loosely inform our understanding of potential labour market trends in the teaching profession in Saskatchewan over the long term.

Limitations of the Present Research

It is acknowledged that the observed results in this study were based on self-reported information. Given the large-scale nature of the study and the breadth of topics that were covered, it was not feasible to independently verify the information provided by participants (e.g., comparing the number of hours that participants reported working

each week versus the average number of hours worked in reality). Along the same lines, it is acknowledged that many of the questions in the study were retrospective in nature, which further exacerbates the problem of establishing the veracity of the reported information.

It is also noted that the present research involved a survey that was completed on one occasion. Given that no longitudinal data was gathered, it is not possible to make statements regarding changes in constructs of interest or claims regarding causal relationships. In addition, although it is useful to assess constructs of interest using multiple methods (e.g., self-report, direct observation, etc.), it was not possible to do so given the sheer scope of the current study and the subsequent "response burden" that would have been placed upon respondents.

General Summary

If one examines the conclusions described previously, certain themes appear to emerge and echo across the broad domains of the larger survey. One theme that repeatedly surfaced in our findings conveyed the positive feelings that teachers had for their work. They prized being in a position to contribute to the growth and evolution of students, and ultimately to the betterment of society. In fact, when asked to recall the best things that had happened to them over the course of their professional careers, most teachers in our sample fondly recounted those instances in which they were able to directly contribute to the success of specific students, or those moments when their hard work, persistence, and support was genuinely acknowledged and praised by others. Further evidence of the high regard that teachers had for their work was supplied by our findings that teachers in our sample were dedicated to their work, absorbed by it, and committed to the ongoing success of their respective schools.

Another consistent theme that emerged throughout our findings concerned the difficulties that teachers had in managing formidable workloads, mounting expectations and responsibilities, and a variety of other negative work-related stressors. The following quote from one of our respondents captures the essence of the multifaceted difficulties that teachers face in their work:

The worst thing is just being thrown into a class with nearly 40 students which consists of ones with physical or mental disabilities, behaviour issues, social or family problems, and without the skills or motivation to do the work. Then being expected to teach the subject while adjusting it to fit everyone's needs and learning ability while being their parent, counsellor, social worker, negotiator, and teacher.

The struggles that teachers experienced in managing these difficulties seemed to temper many of the positive or encouraging results that emerged in the present study. In fact, this moderating effect may be considered as a recurring theme in itself, as multiple examples of this tempering effect were observed throughout this study. For the purposes of illustration, three examples are offered here. First, although the vast majority of teachers in our sample agreed that they were generally satisfied with their work, just over half of our sample agreed that if they were aware of a viable career alternative they would pursue it and leave the teaching profession. Second, although the teachers in our sample indicated that they were dedicated to their work, and absorbed by it, their enthusiasm or "energy" for their work was average at best. Third, although teachers appeared to be strongly committed to the success of the schools in which they worked, they appeared to be far less committed to the teaching profession in general. These examples seem to suggest that the teachers may be genuinely conflicted about their work; the positive aspects of teaching continue to draw them to the profession, but the mounting pressures that they face on the job are leading them to become increasingly disillusioned.

Another clear theme that emerged in our research concerned the link between the health problems of our participants, and the stress and pressures they described in relation to their work life. Our findings clearly showed that while teachers in our sample reported that they were struggling to manage their mounting workloads and increasingly complex responsibilities, they also appeared to be paying a concurrent price in terms of their mental and physical health. As a result, a natural question that emerges is: Could escalating work-related stress be related to the health problems of teachers in our sample? Although it was not possible to draw causal links between work-related stress and the types of health problems reported by the teachers in our sample, our findings may be added to a large body of literature that strongly supports a connection between health problems and occupational stress.

The likelihood that work-related stress contributed to the health problems of our participants is increased by several additional findings. First, a substantial number of teachers in our study reported feeling burnt-out on a regular basis (i.e., at least a few times each week to daily). Second, certain categories of health problems (e.g., mental and behavioural disorders) that were highly prevalent in our sample were deemed to be workrelated by our teachers' health professionals (again, this is based on our participants' selfreport). Third, although the majority of the teachers in our sample reported becoming ill due to workrelated stress, less than half stated that they took time off due to work-related stress, and most felt that they didn't have time to get sick so they often worked when they were ill. Further, the majority of our respondents indicated that work-related stress was negatively affecting their ability to pursue their own personal interests and their relationships with their families, spouses/partners, and friends.

From a theoretical standpoint, our findings regarding the links between negative work-related stressors and subsequent health problems are theoretically consistent with the Job-Demands Resources model (Schaufeli & Bakker, 2004), which views negative work-related stressors (i.e., "job demands") as those aspects of the job

that place a mental and/or physical strain on teachers and may ultimately lead to adverse mental and physical consequences.

In conclusion, our findings indicate that the work life and health of teachers may be regarded with optimism and concern. Although teachers continue to be optimistic about their profession, their levels of work-related commitment, engagement, and satisfaction are continually being eroded by formidable workloads that involve average workweeks that exceed 50 hours, increasingly complex and expanding responsibilities, exposure to a considerable array of negative work-related stressors, and the toll that work-related stress has on their personal lives and their physical and mental health. The sobering truth is that our findings are entirely consistent with other largescale investigations of the work life and health of teachers in other Canadian provinces and international jurisdictions. Given these realities, is it really surprising that attrition rates among teachers are high and that concerns regarding recruitment are growing? Generally speaking, it makes sense to argue that the demands and expectations that are placed upon teachers need to be modified and/or reduced, and that substantial improvements must be made to the supports and resources that are offered to teachers.

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Appendices

Appendix A1

University of Regina Research Ethics Board Approval Form

ð.	REGINA	MEMORANDUM
100		MEMORANDUM
DATE	E: October 31, 2006	
то:	Ron Martin Education	
FROM	VI: K. Arbuthnott Chair, Research Ethics	Board
Re:		ement as Mediators in the Relationships of Job h Problems and Early Retirement Plans (28R0607)
	e be advised that the University sal and found it to be:	of Regina Research Ethics Board has reviewed your
1.	approval to proceed with their lasting more than one year (Se BY SUBMITTING A BRIEF ST will be revoked unless a satisfa	Only applicants with this designation have ethical research as described in their applications. For research ection 1F). ETHICAL APPROVAL MUST BE RENEWED TATUS REPORT EVERY TWELVE MONTHS. Approval actory status report is received. Any substantive changes tion must also be approved prior to their implementation.
2.	ATTACHED). Changes must be research. Please submit a sup	MINOR CHANGES AND PRECAUTIONS (SEE the submitted to the REB and approved prior to beginning plementary memo addressing the concerns to the Chair of the application. Once changes are deemed acceptable, if.
3.	ATTACHED), Changes must be research. Please submit a sup	MAJOR CHANGES AND PRECAUTIONS (SEE the submitted to the REB and approved prior to beginning plementary memo addressing the concerns to the Chair of the application. Once changes are deemed acceptable, if.
4.	UNACCEPTABLE AS SUBMIT redesign. Please contact the C might be revised.	TTED. The proposal requires substantial additions or chair of the REB for advice on how the project proposal
Dr. Ka	atherine Arbuthnott	
220 100	50 × 60 150 50 00 0 50 3 40 10 60 50 10 12 40 50 40 40 40 40 40 60 60 60 60 60 60 60 60 60 60 60 60 60	
	elementary mamp charde he for	warded to the Chair of the Research Ethics Board at the

Appendix A2

Regina Catholic Schools Approval Form



Regina Catholic Schools

THE BOARD OF EDUCATION OF THE RECINA ROMAN CATHOLIC SEMIKATE SCHOOL DIVISION NO. 61

Eich Tachend

Green Keith Director of Education

March 13, 2005

Ron Martin, Ph.D. Department of Psychology University of Regina 3737 Wascama Parkway REGINA SK, S4S 0A2

FAX (306) 337-2321

Dear Dr. Martin:

Regina Catholic Schools fully endorses your proposed research grant application as outlined in your correspondence.

Your proposed research findings will provide the four major urban boards with significant insight into teacher burnout and work engagement. Currently, as you are well aware of, your initial foray into the issues of teacher burnout and work engagement as posed in your research question is a topic of concern to Saskatchewan school boards. Given the nature of the current amalgamation processes and the inevitable outcomes that will arise out of school division amalgamations and increased accountability your findings will be very timely indeed. While your survey will target teachers in the two main urban centres the findings will also yield broader applications.

Your research will yield a sound theoretical basis which school divisions may find very useful as they address the future impact of increased accountability at the classroom and division level.

I trust this is satisfactory.

Please call if I may of further assistance.

Sincerely,

R. J. Kowalchuk

Superintendent, Curriculum and Instruction /School Operations

/pmr

2160 Cararrio Street • Regina Saskatchewan • S41 2V6 Tetaphone: (306) 791-7200 • Fax: (306) 347-7699 mww.resid.co

Appendix A3

Saskatoon Catholic Schools Approval Form



March 13, 2006

Dr. Ronald R Martin Assistant Professor Department of Psychology University of Regina 3737 Wascana Parkway Regina SK S4S 0A2

Dear Dr. Martin:

Following receipt of the information contained in your Detailed Project Description, it is the intention of St. Paul's R.C.S.S.D. #20 to provide support for your study in two ways. First, we will communicate through each of our principals that this research opportunity has been approved. It is anticipated that this approval and subsequent research will be shared with teachers across our division. Second, we can act as the survey distribution centre for this study. Survey materials can be forwarded to the schools via the division's delivery system.

On behalf of our division, I wish to express our support for the research undertaking and look forward to the results.

Sincerely,

B. Bitz

Superintendent of Education

DEBSITE: www.scr.ak.ca

Appendix A4

Saskatoon Public Schools Approval Form



Caring to Learn... Learning to Care

310 - 21st Street East, Saskatoon, Saskatchewan, S7K 1M7 Tel: (306) 663-6200 + Fax: (306) 633-8207 WWw.spsd.sk.ca Dr. Jim Jutras, Director of Education

March 13, 2006

Dr. Ronald R. Martin Assistant Professor Department of Psychology University of Regina 3737 Wascana Parkway Regina, SK S4S 0A2

Dear Dr. Martin:

Subject: Letter of Support

On behalf of our organization, I am pleased to provide a letter of support in principle for the proposed project related to Teacher Stress and Burnout in Saskatchewan's Urban Public Schools.

Given the current demands and expectations placed on classroom teachers, we feel that this is a subject worthy of investigation.

Saskatoon Public Schools administration will require some matters regarding research within our schools to be addressed prior to full implementation of this project. This would include the continued involvement and consent of staff, continued appropriate resources, and approval of such a research project according to research protocols established by Saskatoon Public Schools.

In closing, we believe this project is very valuable. We encourage continued work and collaboration in this aspect of teacher wellness. We are confident that this project will be of great value and that it will make a difference in the lives of classroom teachers.

Respectfully,

Dr. Scott Tunison

Coordinator: Research and Measurement

/ks

Sample Demographics

Descriptor	n	%	M (SD)	Mdn	Range Min Max
Total Sample	745				
Age (years)			42.7	(9.6)	22 61
Sex					
Female	536	72.4			
Male	204	27.6			
Marital Status					
Married	576	78.3			
Single	97	13.2			
Separated/Divorced	57	7.7			
Widowed	6	0.8			
Education					
BEd	352	47.6			
BEd (AD)	204	27.6			
Advanced degree	126	17.1			
BEd / Post Grad Diploma	54	7.3			
Undergraduate degree	3	0.4			
Present Position					
Teacher	620	83.9			
Principal	37	5.0			
Vice-Principal	32	4.3			
Other: combination	50	6.8			
Full-time	650	88.2			
Part-time	74	10.0			
Other	13	1.8			
Primary Teaching Responsibility					
Pre-kindergarten	10				
Kindergarten	55				
Grade 1	73				
Grade 2	86				
Grade 3	84				
Grade 4	86				
Grade 5	84				
Grade 6	79				
Grade 7	97				
Grade 8	94				
Grade 9	149				
Grade 10	164				
Grade 11	158				
Grade 12	151				
Specialist (e.g., Special Ed)	138				

(continued)

Descriptor	n	%	M (SD)	Mdn	Raı Min	nge Max
Work Setting Elementary School High School Both	490 236 13	66.3 31.9 1.8				
Working In Saskatoon Regina	565 161	77.8 22.2				
Working In Community School? No Yes	544 181	75.0 25.0				
Hours Spent at Work (Average Week) Full-time employees Part-time employees			44.0 (6.2) 27.9 (7.2)	45.0 25.5	9.5 12	70.0 50.0
Hours Work Outside of School (Average Week) Full-time employees Part-time employees			7.9 (5.8) 5.8 (4.0)	6.0 5.0	0	36.0 20.0
Years in Current Position			5.5 (5.4)	4.0	0	32
Years of Experience			16.4 (9.1)	16.0	0	38
Yearly Salary (rounded to dollars)			59395 (13024)	62000	13000	107000
Days Spent on Work-Related Activities During Summer Holidays			8.5 (6.3)	7.0	0	45.0
Extra Teaching During Summer? No Yes	681 46	93.7 6.3				
Enrolled in Professional Development Activities Outside of Those Required By School Division? No Yes Number of Days Spent On These Activities	387 346	52.8 47.2	4.5 (10.3)	2.0	0	180.0ª

Note. Total number of respondents = 745. In cases of missing data, percentages are calculated based on the number of valid cases. ^a This significant number of days reported by this participant (and others in our sample) was reported in reference to graduate program work

Descriptive and Frequency Data for Items Regarding Recognition From Multiple Sources

Item	M (SD)	Mdn				Agree n (%)	Disagree n (%)			
			StD	D	SID	SIA	Α	StA		
my friends and family	4.65 (1.15)	5	11 (1.5)	32 (4.3)	62 (8.4)	177 (23.9)	282 (38.0)	178 (24.0)	637 (85.9)	105 (14.2)
my colleagues	4.61 (1.01)	5	5 (0.7)	30 (4.0)	53 (7.1)	195 (26.3)	339 (45.7)	120 (16.2)	654 (88.2)	88 (11.8)
the administrators in my school/ division	4.21 (1.32)	4	34 (4.6)	63 (8.5)	86 (11.6)	188 (25.4)	263 (35.6)	105 (14.2)	556 (75.2)	183 (24.7)
my students	4.13 (1.24)	4	26 (3.5)	76 (10.3)	77 (10.4)	217 (29.4)	280 (38.0)	61 (8.3)	558 (75.7)	179 (24.2)
parents of my students	3.67 (1.27)	4	38 (5.2)	131 (17.8)	108 (14.7)	244 (33.2)	189 (25.7)	26 (3.5)	459 (62.4)	277 (37.7)
my community or society in general	2.98 (1.29)	3	111 (15.0)	181 (24.5)	157 (21.2)	204 (27.6)	75 (10.1)	12 (1.6)	291 (39.3)	449 (60.7)

Descriptive and Frequency Data for Items Regarding Collegial Support From Multiple Sources

Item	M (SD)	Mdn				Agree n (%)	Disagree n (%)			
			StD	D	SID	SIA	Α	StA		
my colleagues	4.77 (0.98)	5	4 (0.5)	26 (3.5)	41 (5.5)	141(19.0)	387 (52.2)	143 (19.3)	671 (90.5)	71 (9.5)
the administrators in my school/ division	4.24 (1.27)	5	26 (3.5)	70 (9.4)	72 (9.7)	198 (26.7)	280 (37.8)	95 (12.8)	573 (77.3)	168 (22.6)
the Saskatchewan Teachers' Federation	3.61 (1.35)	4	72 (9.8)	94 (12.8)	122 (16.6)	249 (33.8)	163 (22.1)	37 (5.0)	449 (60.9)	288 (39.2)

Note. StD = strongly disagree, D = disagree, SID = slightly disagree, SIA = slightly agree, A = agree, StA = strongly agree.

Descriptive and Frequency Data for Items Regarding Feedback From Multiple Sources

Item	M (SD)	Mdn	n (%)							Disagree n (%)
			StD	D	SID	SIA	Α	StA		
my colleagues	4.13 (1.08)	4	13 (1.8)	55 (7.5)	103 (14.0)	265 (35.9)	259 (35.1)	43 (5.8)	567 (76.8)	171 (23.3)
my students	3.99 (1.19)	4	15 (2.0)	89 (11.9)	114 (15.3)	234 (31.4)	231 (31.0)	50 (6.7)	515 (69.1)	218 (29.2)
the administrators in my school/ division	3.86 (1.23)	4	32 (4.3)	84 (11.4)	133 (18.1)	230 (31.3)	217 (29.5)	40 (5.4)	487 (66.2)	249 (33.8)
parents of my students	3.49 (1.23)	4	52 (7.1)	115 (15.7)	163 (22.2)	241 (32.8)	148 (20.2)	15 (2.0)	404 (55.0)	330 (45.0)
my community or society in general	2.86 (1.18)	3	106 (14.4)	182 (24.7)	227 (30.8)	165 (22.4)	51 (6.9)	7 (0.9)	223 (30.2)	515 (69.9)

Descriptive and Frequency Data for Items Regarding Job-Related Control

Item	M (SD)	Mdn				Agree n (%)	Disagree n (%)			
			StD	D	SID	SIA	Α	StA		
adequate influence or input on decision-making in my classes	4.75 (1.19)	5	23 (3.2)	26 (3.6)	42 (5.8)	114 (15.9)	328 (45.6)	186 (25.9)	628 (87.4)	91 (12.6)
opportunities for professional development	4.38 (1.28)	5	27 (3.6)	52 (7.0)	66 (8.9)	201 (27.1)	263 (35.4)	134 (18.0)	598 (80.5)	145 (19.5)
adequate influence or input on decision-making in my school	4.00 (1.25)	4	34 (4.6)	68 (9.2)	112 (15.1)	246 (33.1)	219 (29.5)	64 (8.6)	529 (71.2)	214 (28.9)
flexible job description	3.20 (1.51)	4	124 (16.7)	157 (21.2)	123 (16.6)	167 (22.5)	129 (17.4)	42 (5.7)	338 (45.6)	404 (54.5)

Descriptive and Frequency Data for Items Regarding School Culture (Atmosphere)

Item	M (SD)	M (SD) Mdn			n (^c	%)			Agree n (%)	Disagree n (%)
			StD	D	SID	SIA	Α	StA		
positive working relationship between teachers and administration	4.59 (1.24)	5	25 (3.4)	34 (4.6)	63 (8.5)	149 (20.0)	304 (40.9)	169 (22.7)	622 (83.6)	122 (16.5)
culture in the school is positive and productive	4.53 (1.15)	5	20 (2.7)	32 (4.3)	63 (8.5)	164 (22.0)	347 (46.6)	118 (15.9)	629 (84.5)	115 (15.5)
culture in the school is encouraging and supportive of new ideas	4.41 (1.18)	5	20 (2.7)	39 (5.2)	78 (10.5)	195 (26.2)	301 (40.5)	111 (14.9)	607 (81.6)	137 (18.4)
culture in the school is relaxed and comfortable	4.33 (1.23)	5	22 (3.0)	56 (7.5)	80 (10.8)	190 (25.5)	292 (39.2)	104 (14.0)	586 (78.7)	158 (21.3)
feeling isolated from colleagues	2.54 (1.43)	2	218 (29.3)	233 (31.3)	73 (9.8)	138 (18.5)	59 (7.9)	23 (3.1)	220 (29.5)	524 (70.4)

Descriptive and Frequency Data for Items Regarding Practical or Tangible Factors

Item	M (SD)	Mdn				Agree n (%)	Disagree n (%)			
			StD	D	SID	SIA	Α	StA		
adequate job security	4.90 (1.24)	5	33 (4.4)	22 (3.0)	21 (2.8)	82 (11.1)	333 (44.9)	251 (33.8)	666 (89.8)	76 (10.2)
adequate time for holidays and vacations	4.65 (1.20)	5	24 (3.2)	34 (4.6)	42 (5.7)	145 (19.5)	332 (44.7)	166 (22.3)	643 (86.5)	100 (13.5)
adequate benefits (e.g., health, dental, etc.)	3.65 (1.38)	4	55 (7.4)	126 (16.9)	138 (18.5)	176 (23.6)	207 (27.8)	43 (5.8)	426 (57.2)	319 (42.8)
adequate salary	2.88 (1.47)	3	177 (23.9)	148 (19.9)	154 (20.8)	140 (18.9)	100 (13.5)	23 (3.1)	263 (35.5)	479 (64.6)
adequate tangible support (i.e., time, money, space, etc.)	2.70 (1.40)	3	189 (25.4)	181 (24.4)	146 (19.7)	126 (17.0)	92 (12.4)	9 (1.2)	227 (30.6)	516 (69.5)

Descriptive and Frequency Data for Items Regarding Negative Stressors (Difficulties and Complexities of Teaching)

Item	M (SD)	Mdn			n (%)			Agree n (%)	Disagree n (%)
			StD	D	SID	SIA	Α	StA		
More students with behaviour problems	5.42 (0.92)	6	3 (0.4)	14 (1.9)	10 (1.4)	79 (10.7)	170 (23.0)	463 (62.7)	712 (96.4)	27 (3.7)
More students with special needs	5.21 (1.06)	6	10 (1.4)	20 (2.7)	14 (1.9)	93 (12.6)	229 (31.0)	373 (50.5)	695 (94.1)	44 (6.0)
Large class sizes	4.90 (1.34)	5	23 (3.1)	42 (5.7)	37 (5.0)	104 (14.2)	208 (28.3)	320 (43.6)	632 (86.1)	102 (13.8)
Disruptive behaviour	4.76 (1.24)	5	9 (1.2)	37 (5.0)	77 (10.4)	142 (19.2)	213 (28.7)	263 (35.5)	618 (83.4)	123 (16.6)
Students' lack of effort (unwilling to study or work hard)	4.71 (1.17)	5	6 (0.8)	37 (5.0)	56 (7.6)	190 (25.7)	224 (30.3)	226 (30.6)	640 (86.6)	99 (13.4)
New students added after start of school year	4.69 (1.23)	5	15 (2.0)	39 (5.3)	48 (6.5)	179 (24.4)	232 (31.6)	221 (30.1)	632 (86.1)	102 (13.8)
Parents' expectations too low	4.57 (1.04)	5	8 (2.0)	12 (3.0)	19 (4.8)	126 (31.8)	168 (42.4)	63 (15.9)	357 (90.1)	39 (9.8)
Students treating each other inappropriately (e.g., fights, bullying)	4.55 (1.24)	5	10 (1.3)	50 (6.7)	79 (10.6)	175 (23.6)	242 (32.6)	186 (25.1)	603 (81.3)	139 (18.6)
Students' poor attitudes or motivation	4.50 (1.28)	5	13 (1.8)	56 (7.6)	75 (10.1)	185 (25.0)	221 (29.9)	189 (25.6)	595 (80.5)	144 (19.5)
Student absenteeism	4.42 (1.49)	5	42 (5.7)	67 (9.1)	58 (7.9)	151 (20.5)	208 (28.2)	211 (28.6)	570 (77.3)	167 (22.7)
Parents' expectations too high	4.41 (1.16)	5	10 (2.6)	20 (5.3)	31 (8.2)	119 (31.5)	141 (37.3)	57 (15.1)	317 (83.9)	61 (16.1)
Disrespectful behaviour toward teachers (e.g., language, gestures)	4.37 (1.45)	5	25 (3.4)	88 (11.9)	73 (9.9)	170 (22.9)	175 (23.6)	210 (28.3)	555 (74.8)	186 (25.2)

(continued)

Item	M (SD)	Mdn			n (9	%)			Agree n (%)	Disagree n (%)
			StD	D	SID	SIA	Α	StA		
Students regularly late for class	4.34 (1.34)	4	20 (2.7)	75 (10.2)	68 (9.3)	206 (28.0)	201 (27.3)	165 (22.4)	572 (77.7)	163 (22.2)
Creating personal program plans for students (PPPs, IPPs, IEPs)	4.31 (1.52)	5	53 (7.5)	64 (9.0)	55 (7.8)	157 (22.1)	200 (28.2)	180 (25.4)	537 (75.7)	172 (24.3)
Too little communication with parents	4.30 (1.08)	4	13 (2.6)	22 (4.4)	47 (9.5)	183 (37.0)	183 (37.0)	47 (9.5)	413 (83.5)	82 (16.5)
Students living in poverty or unstable environments	4.28 (1.46)	5	38 (5.1)	76 (10.3)	80 (10.8)	166 (22.4)	207 (28.0)	173 (23.4)	546 (73.8)	194 (26.2)
Disciplining students	4.22 (1.29)	4	21 (3.0)	70 (9.8)	82 (11.5)	204 (28.7)	226 (31.8)	108 (15.2)	538 (75.7)	173 (24.3)
Too much communication with parents	4.21 (1.31)	4	13 (4.6)	23 (8.2)	26 (9.3)	88 (31.4)	89 (31.8)	41 (14.6)	218 (77.8)	62 (22.1)
Parent teacher conferences	4.04 (1.42)	4	45 (6.2)	83 (11.4)	84 (11.6)	215 (29.7)	184 (25.4)	114 (15.7)	513 (70.8)	212 (29.2)
More ESL students in the classroom	3.95 (1.54)	4	58 (8.0)	114 (15.7)	65 (8.9)	185 (25.4)	177 (24.3)	128 (17.6)	490 (67.3)	237 (32.6)
Students who violate rules	3.57 (1.58)	3	96 (13.0)	134 (18.2)	86 (11.7)	178 (24.1)	161 (21.8)	83 (11.2)	422 (57.1)	316 (42.9)
Verbal abuse from parents	3.27 (1.65)	3	131 (17.7)	169 (22.9)	85 (11.5)	162 (21.9)	105 (14.2)	87 (11.8)	354 (47.9)	385 (52.1)
Students bullying or threatening teachers	3.11 (1.55)	3	128 (17.4)	178 (24.2)	134 (18.2)	153 (20.8)	73 (9.9)	71 (9.6)	297 (40.3)	440 (59.8)
Verbal abuse from students	2.94 (1.63)	3	175 (23.7)	186 (25.2)	104 (14.1)	120 (16.3)	86 (11.7)	67 (9.1)	273 (37.1)	465 (63)
Physical assault by students	2.31 (1.49)	2	298 (40.9)	174 (23.9)	114 (15.6)	64 (8.8)	36 (4.9)	43 (5.9)	143 (19.6)	586 (80.4)
Verbal abuse from colleagues	2.03 (1.43)	1	382 (51.9)	162 (22.0)	81 (11.0)	44 (6.0)	31 (4.2)	36 (4.9)	111 (15.1)	625 (84.9)

Appendix C2

Descriptive and Frequency Data for Items Regarding Negative Stressors (Increasing Workload and Expectations Faced by Teachers)

Item	M (SD)	Mdn			n (^c	%)			Agree n (%)	Disagree n (%)
			StD	D	SID	SIA	Α	StA		
Taking on multiple roles (e.g., social worker, counsellor)	5.45 (0.89)	6	3 (0.4)	9 (1.2)	16 (2.2)	69 (9.2)	171 (23.2)	469 (63.6)	709 (96)	28 (3.8)
Increasing expectations and responsibilities (from multiple sources)	5.30 (0.89)	6	4 (0.6)	4 (0.6)	18 (2.5)	93 (12.9)	225 (31.3)	375 (52.2)	693 (96.4)	26 (3.7)
Volume of workload (related to teaching)	5.14 (1.01)	5	6 (0.8)	11 (1.5)	29 (4.0)	115 (15.7)	240 (32.7)	333 (45.4)	688 (93.8)	46 (6.3)
Seasonal reporting pressures	5.10 (1.06)	5	7 (0.9)	17 (2.3)	30 (4.1)	121 (16.4)	232 (31.4)	332 (44.9)	685 (92.7)	54 (7.3)
Working more hours than paid for	4.97 (1.27)	5	14 (1.9)	34 (4.6)	51 (6.9)	109 (14.7)	185 (25.0)	346 (46.8)	640 (86.5)	99 (13.4)
Curriculum changes	4.89 (1.21)	5	12 (1.6)	36 (4.9)	40 (5.4)	131 (17.7)	233 (31.5)	287 (38.8)	651 (88)	88 (11.9)
Inadequate pay for hours worked	4.78 (1.33)	5	20 (2.7)	38 (5.1)	66 (8.9)	127 (17.1)	198 (26.7)	292 (39.4)	617 (83.2)	124 (16.7)
Administrative duties (unrelated to teaching)	4.65 (1.23)	5	18 (2.4)	36 (4.9)	59 (8.0)	162 (21.9)	262 (35.5)	202 (27.3)	626 (84.7)	113 (15.3)
Prep for teaching new grades	4.58 (1.45)	5	37 (5.1)	48 (6.6)	63 (8.7)	127 (17.6)	206 (28.5)	242 (33.5)	575 (79.6)	148 (20.4)
Time spent marking students' work	4.50 (1.26)	5	15 (2.0)	47 (6.4)	80 (10.9)	182 (24.9)	234 (32.0)	174 (23.8)	590 (80.7)	142 (19.3)
Prep time for upcoming school year	4.37 (1.22)	4	13 (1.8)	52 (7.1)	77 (10.5)	248 (33.7)	200 (27.2)	146 (19.8)	594 (80.7)	142 (19.4)
Teaching split grades	4.26 (1.84)	5	112 (16.2)	53 (7.7)	31 (4.5)	83 (12.0)	169 (24.5)	243 (35.2)	495 (71.7)	196 (28.4)
Workload interfering with vacation time	3.87 (1.52)	4	59 (8.0)	102 (13.9)	119 (16.2)	179 (24.3)	151 (20.5)	126 (17.1)	456 (61.9)	280 (38.1)

Note. StD = strongly disagree, D = disagree, SID = slightly disagree, SIA = slightly agree, A = agree, StA = strongly agree.

Descriptive and Frequency Data for Items Regarding Negative Stressors (Dissatisfaction with Resources)

Item	M (SD)	Mdn	dn n (%)							Disagree n (%)
			StD	D	SID	SIA	Α	StA		
Insufficient time to do your work	5.08 (1.09)	5	5 (0.7)	22 (3.0)	39 (5.3)	114 (15.4)	225 (30.4)	334 (45.2)	673 (91)	66 (9.0)
Using personal finances to buy work materials	4.69 (1.44)	5	38 (5.1)	46 (6.2)	46 (6.2)	127 (17.2)	205 (27.7)	278 (37.6)	610 (82.5)	130 (17.5)
Insufficient resources (e.g., classroom supplies)	4.63 (1.34)	5	17 (2.3)	56 (7.6)	63 (8.5)	151 (20.5)	209 (28.3)	242 (32.8)	602 (81.6)	136 (18.4)
Limited staff to assist special needs students	3.77 (1.54)	4	66 (9.0)	117 (16.0)	115 (15.7)	172 (23.5)	148 (20.2)	115 (15.7)	435 (59.4)	298 (40.7)
Limited staff to assist ESL students	3.34 (1.62)	3	119 (16.9)	134 (19.0)	113 (16.0)	143 (20.3)	119 (16.9)	77 (10.9)	339 (48.1)	366 (51.9)
Limited substitute teacher availability	2.95 (1.61)	3	170 (23.2)	171 (23.4)	135 (18.4)	106 (14.5)	83 (11.3)	67 (9.2)	256 (35.0)	476 (65.0)

Frequency Data for Themes of Negative Stressors

1. Workload

Overwhelming Workloads (n=400)

Large Classrooms/Split Grades (n=185)

Lack of Time (n=144)

Constant Change in Duties/Responsibilities (142)

Lack of Resources (n=121)

Multiple Roles (n=80)

Lack of Flexibility/Autonomy (n=21)

Disciplinary Action (n=14)

2. Problems with Students

Behavioural Problems/Disrespect (n=274)

Meeting Special/Diverse Needs (n=173)

Abusive Students/ Confrontation (n=11)

3. Problems with Parents

Uninvolved/Unsupportive Parents (n=78)

Unreasonable/High Expectations (n=55)

Abusive Parents/Confrontation (n=36)

General Comments Re: Parents (n=20)

4. Problems with Administration/Leadership

Lack of Support/Bullying/Negativity (n=92)

Lack of Recognition/Appreciation (n=34)

- 5. Lack of Compensation/Funding (n=83)
- 6. Legal/Ethical Issues

Social Issues/Abuse Outside of School (n=47)

Charges Against Teacher (n=1)

Discrimination (n=1)

Safety Issues (n=1)

7. Problems with Colleagues

Lack of Support/Abuse (n=45)

Colleagues/Staff in Crisis (n=2)

- 8. Community Perceptions/Expectations (n=15)
- 9. Issues with School Building (n=5)
- 10. Traumatic Events (n=3)

Frequency Data for Themes of Teachers' Worst Experiences

1. Problems with Parents

Verbal Abuse/Criticism/Threats (n=184)

Harassment (n=39)

Lack of Consequences/Lack of Support (n=27)

Physical Abuse/Violence (n=14)

Public Intoxication (n=5)

2. Problems with Administration/Leadership/System

Lack of Support/Disrespect/Indifference (n=131)

Forced Job/Duty Change or Adjustment (n=53)

Verbal Abuse/Negative Evaluation (n=32)

Lack of Discipline of Students/Lack of Consequences (n=22)

Lack of Recognition (n=15)

3. Problems with Students

Physical Abuse/Violence (n=85)

Verbal Abuse/Mental Abuse/Threats (n=81)

General Behavioural Issues (n=55)

Destruction of Property/Theft (n=27)

Alcohol/Drug Abuse (n=3)

4. Workload

Lack of Resources (n=45)

Integrating Students with Special Needs (n=42)

High Demands/Extracurricular/Paperwork (n=29)

Large Class Size/Split Grades (n=25)

Lack of Time/No Time Off (n=13)

5. Problems with Colleagues

Unsupportive/Unprofessional/Accusatory (n=35)

Lack of Sharing of Workload (n=4)

Negative Attitudes (n=5)

6. Legal/Ethical Issues

Physical/Sexual Abuse/Sexual Harassment (n=19)

Lawsuit/Threats of... (n=9)

Charges Against Students (n=6)

Social Issues (e.g., unsafe living conditions) (n=20)

Discrimination (n=5)

Building Problems/Safety Issues (n=1)

7. Traumatic Events (e.g., Accidents/Deaths/Suicide) (n=21)

8. Lack of Compensation/Financial Concerns (n=7)

Descriptive and Frequency Data for Items Regarding the Negative Impact of Work-Related Stressors on Participants' Personal Lives

Item	M (SD)	Mdn		n (%)						Disagree n (%)
			StD	D	SID	SIA	Α	StA		
Negative impact on my ability to pursue personal interests	4.37 (1.43)	5	37 (5.0)	70 (9.4)	60 (8.1)	183 (24.6)	208 (27.9)	187 (25.1)	578 (77.6)	167 (22.4)
Negative impact on family life	3.87 (1.42)	4	55 (7.4)	102 (13.8)	70 (9.5)	257 (34.8)	165 (22.3)	90 (12.2)	512 (69.3)	227 (30.7)
Negative impact on relationship with spouse or partner	3.65 (1.47)	4	77 (10.7)	116 (16.1)	69 (10.0)	252 (35.0)	133 (18.5)	72 (10.0)	457 (63.6)	262 (36.4)
Negative impact on relationship with friends	3.49 (1.53)	4	92 (12.4)	139 (18.7)	107 (14.4)	196 (26.3)	136 (18.3)	74 (10.0)	406 (54.6)	338 (45.4)

Note. StD = strongly disagree, D = disagree, SID = slightly disagree, SIA = slightly agree, A = agree, StA = strongly agree

Appendix D1

Descriptive and Frequency Data for Items Regarding Positive Aspects of Teaching

Item	M (SD)	Mdn			n (%)				Disagree n (%)
			StD	D	SID	SIA	Α	StA		
Seeing students learn/grow	5.83 (0.46)	6	2 (0.3)	0 (0.0)	1 (0.1)	3 (0.4)	105 (14.1)	632 (85.1)	740 (99.6)	3 (0.4)
Working with students	5.71 (0.56)	6	2 (0.3)	0 (0.0)	1 (0.1)	16 (2.2)	172 (23.1)	552 (74.3)	740 (99.6)	3 (0.4)
Work is important to society (educating future citizens)	5.57 (0.73)	6	3 (0.4)	4 (0.5)	6 (0.8)	34 (4.6)	198 (26.7)	496 (66.9)	728 (98.2)	13 (1.7)
Memorable and rewarding experiences	5.56 (0.68)	6	1 (0.1)	3 (0.4)	1 (0.1)	47 (6.3)	213 (28.6)	478 (64.2)	738 (99.1)	5 (0.6)
Unexpected success of challenging students	5.55 (0.70)	6	3 (0.4)	3 (0.4)	2 (0.3)	35 (4.7)	228 (30.8)	470 (63.4)	733 (98.9)	8 (1.1)
Excitement of classroom	5.40 (0.77)	6	2 (0.3)	3 (0.4)	6 (0.8)	73 (9.9)	258 (35.1)	394 (53.5)	725 (98.5)	11 (1.5)
Working with diverse populations	5.01 (1.08)	5	9 (1.2)	21 (2.8)	27 (3.6)	134 (18.1)	257 (34.6)	294 (39.6)	685 (92.3)	57 (7.6)
Opportunities for professional development	4.77 (1.05)	5	5 (0.7)	22 (3.0)	45 (6.1)	192 (25.9)	280 (37.8)	197 (26.6)	669 (90.3)	72 (9.8)

Note. StD = strongly disagree, D = disagree, SID = slightly disagree, SIA = slightly agree, A = agree, StA = strongly agree

Appendix D2

Frequency Data for Themes of Positive Aspects of Teaching

- 1. Student Success/Making a Difference (n=548)
- 2. Connecting with Students/Role Model (n=335)
- 3. Job Satisfaction/Passion for Teaching (n=216)
- 4. Collegial Interactions/Collaboration (n=180)
- 5. Professional Development/Personal Growth (n=90)
- 6. Job Variety/Diversity/Novelty (n=88)
- 7. Validation/Acknowledgement (n=75)
- 8. Holidays/Job Security/Benefits/Salary (n=67)
- 9. Autonomy/Job Freedom/Flexibility (n=56)
- 10. Supportive Parents/Families (n=38)
- 11. Extracurricular Involvement (n=37)
- 12. Supportive Administration (n=14)
- 13. Small Class Size (n=3)
- 14. Unusual Responses (n=12)

Appendix D3

Frequency Data for Participants' Best Experiences as a Teacher

- 1. Being Recognized/Validated/Remembered (n=354)
- 2. Making a Difference/Success of Students (n=247)
- 3. Goal Attainment/Personal Success/Growth (n=45)
- 4. Connecting with Students (n=36)
- 5. Significant Events/Extracurricular Events (n=32)
- 6. Collegial Connections/Teamwork (n=20)
- 7. Preferences Acknowledged/Preferred Job (n=18)
- 8. Unusual/Interesting Responses (n=15)
- 9. Building Relationships with Families (n=6)

Appendix D4

Descriptive and Frequency Data for Items Regarding Satisfaction with Career and Current Position

Item	M (SD)	M (SD) Mdn			Agree n (%)	Disagree n (%)				
			StD	D	SID	SIA	Α	StA		
Passion for teaching	5.35 (0.80)	6	1 (0.1)	5 (0.7)	6 (0.8)	91 (12.4)	249 (34.0)	380 (51.9)	720 (98.3)	12 (1.6)
Look forward to going to work	4.71 (1.06)	5	9 (1.2)	25 (3.4)	48 (6.5)	172 (23.2)	326 (44.0)	161 (21.7)	659 (88.9)	82 (11.1)
I am satisfied with my job	4.60 (1.10)	5	7 (0.9)	46 (6.2)	43 (5.8)	182 (24.5)	328 (44.2)	136 (18.3)	646 (87.0)	96 (12.9)
Would choose teaching profession again	4.50 (1.52)	5	43 (5.8)	66 (8.9)	57 (7.7)	133 (17.9)	192 (25.9)	250 (33.7)	575 (77.5)	166 (22.4)
If aware of a viable career alternative, would pursue it and leave teaching	3.39 (1.64)	4	123 (16.5)	149 (20.0)	91 (12.2)	169 (22.7)	123 (16.5)	90 (12.1)	382 (51.3)	363 (48.7)

Frequency Data for Degree of Impairment Within Each Dimension of Burnout

Dimension of Burnout	Number of Participants (%)	
Emotional Exhaustion		
Low	186 (25.3)	
Moderate	234 (31.8)	
High	315 (42.9)	
Depersonalization		
Low	550 (75.5)	
Moderate	122 (16.8)	
High	56 (7.7)	
Personal Accomplishment		
Low	474 (67.4)	
Moderate	138 (19.6)	
High	91 (12.9)	

Appendix E2

Mean T-scores for the Eight Subscales and Two Summary Scales of the SF-36 v-2

Subscale	M	Summary Scale	M
Physical Functioning	53.02		
Role-Physical	47.96	DI : 111 III	54.00
Bodily Pain	49.14	Physical Health	51.36
General Health	48.84		
Vitality	46.07		
Social Functioning	44.93	M (111 III	44.44
Role-Emotional	45.05	Mental Health	44.14
Mental Health	47.75		

Note. Reminder: the standard deviation for T-scores is 10.

Somatic Complaints

Somatic Complaint	Yes n (%)	No n (%)	Frequency M (SD) Mdn	Strength M (SD) M	ldn
A cold or the flu	604 (82.3)	130 (17.7)	1.27 (0.70) 1	3.17 (1.37)	3
Difficulty falling asleep at night	579 (78.7)	157 (21.3)	3.25 (1.62) 3	3.53 (1.39)	3
Headaches	560 (76.8)	169 (23.2)	2.78 (1.39) 3	3.58 (1.40)	4
A sore throat	546 (75.0)	182 (25.0)	1.42 (0.90) 1	3.00 (1.33)	3
Back pain	463 (63.3)	268 (36.7)	2.95 (1.72) 3	3.53 (1.35)	3
Tearfulness	356 (48.6)	376 (51.4)	2.28 (1.36) 2	2.95 (1.43)	3
Tightening of my muscles	342 (46.6)	392 (53.4)	3.53 (1.70) 3	3.58 (1.39)	4
Sinusitis (inflammation of the sinuses)	332 (45.2)	403 (54.8)	1.87 (1.50) 1	3.56 (1.44)	3
Bowel difficulties (constipation or diarrhea)	329 (44.7)	407 (55.3)	3.01 (1.70) 3	3.33 (1.49)	3
A loss of my voice	294 (40.0)	441 (60.0)	1.42 (0.96) 1	3.37 (1.63)	3
Abdominal pain (pain in the stomach or gut)	267 (36.3)	469 (63.7)	2.45 (1.57) 2	3.20 (1.29)	3
Acid in my stomach	228 (31.1)	506 (68.9)	2.63 (1.62) 2	3.08 (1.48)	3
My heart beating too fast	223 (30.3)	514 (69.7)	2.22 (1.46) 2	2.85 (1.33)	3
Dizziness	216 (29.3)	520 (70.7)	2.01 (1.37) 1	2.54 (1.35)	2
Nausea	203 (27.6)	532 (72.4)	1.85 (1.27) 1	2.70 (1.39)	2
A ringing sensation in my ear	182 (24.9)	550 (75.1)	2.66 (1.83) 2	2.58 (1.44)	2
Arthritis	171 (23.3)	563 (76.7)	3.92 (1.84) 4	3.42 (1.37)	3
Difficulty breathing	163 (22.2)	571 (77.8)	2.19 (1.61) 1	2.47 (1.34)	2
Nightmares	157 (21.3)	579 (78.7)	1.96 (1.23) 1	3.12 (1.40)	3
An injury from a non-occupational cause	156 (21.3)	576 (78.7)	1.67 (1.50) 1	3.47 (1.61)	3
A loss of appetite	149 (20.3)	586 (79.7)	2.40 (1.52) 2	2.60 (1.39)	2
Hemorrhoids	132 (18.0)	602 (82.0)	2.23 (1.61) 2	2.80 (1.56)	3

(Continued)

Appendix E3, continued

Somatic Complaint	Yes n (%)	No n (%)	Frequency M (SD) Mdn	Strength M (SD) Mdn
Blurred vision	129 (17.7)	601 (82.3)	2.66 (1.66) 2	2.87 (1.30) 3
Eczema	115 (15.7)	616 (84.3)	2.79 (2.04) 2	2.88 (1.50) 3
Trembling hands	91 (12.4)	642 (87.6)	2.91 (1.98) 2	2.64 (1.36) 2
A sty (pink eye; conjunctivitis)	81 (11.0)	654 (89.0)	1.14 (0.67) 1	2.76 (1.69) 3
Psoriasis (scaly red patches on the skin)	76 (10.4)	658 (89.6)	2.24 (1.72) 1	2.84 (1.54) 3
Asthma	75 (10.2)	661 (89.8)	2.62 (1.85) 2	3.39 (1.34) 3
Hives	72 (9.8)	660 (90.2)	1.57 (1.17) 1	2.68 (1.42) 2
A weight loss (without dieting or exercising)	67 (9.1)	666 (90.9)	1.86 (1.43) 1	2.67 (1.33) 3
Bursitis	54 (7.4)	679 (92.6)	3.35 (2.11) 3	3.42 (1.41) 3
Gout	16 (2.2)	717 (97.8)	1.47 (1.06) 1	3.87 (1.77) 4

Diagnosed Illnesses

Illness	Diagnosed b	y a Physician?		Emerged Before or After Start of Teaching Career?		
	Yes n (%)1	No n (%)1	Before n (%)2	After n (%)2		
migraine headaches	221 (30.6)	502 (69.4)	87 (39.4)	134 (60.6)		
depression or some other mood disorder	177 (24.9)	534 (75.1)	39 (22.0)	138 (78.0)		
gastroenteritis or any illness related to the digestive system	127 (17.4)	603 (82.6)	25 (19.7)	102 (80.3)		
a benign growth or tumour	100 (13.8)	626 (86.2)	14 (14.0)	86 (86.0)		
hypertension (high blood pressure)	97 (13.2)	635 (86.7)	9 (9.3)	88 (90.7)		
ulcers	61 (8.4)	668 (91.6)	27 (44.3)	34 (55.7)		
hypotension (low blood pressure)	49 (6.7)	679 (93.3)	27 (55.1)	22 (44.9)		
a gall bladder disorder or disease	44 (6.1)	679 (93.9)	8 (18.2)	36 (81.8)		
a cardiovascular disorder	29 (4.0)	700 (96.0)	10 (34.5)	19 (65.5)		
a kidney disorder or kidney disease	24 (3.3)	705 (96.7)	9 (37.5)	15 (62.5)		
a malignant growth or tumour	20 (2.8)	707 (97.2)	5 (25.0)	15 (75.0)		
colitis	15 (2.1)	712 (97.9)	3 (20.0)	12 (80.0)		

Note. 1 = These percentages are calculated based on the total number of valid responses from the entire sample. 2 = These percentages are based on the total number of participants who responded "yes" in the column labelled, "Diagnosed by a Physician?"

Other Diagnosed Illnesses Ranked According to the ICD-10 Major Diagnostic Categories

Major Diagnostic Category	Frequency (n)
Diseases of the musculoskeletal system and connective tissue (e.g., back pain, sciatica, fibromyalgia, arthritis)	59
Endocrine, nutritional and metabolic diseases (e.g., diabetes, high cholesterol, thyroid disorders)	52
Diseases of the respiratory system (e.g., asthma, laryngitis, bronchitis, sinusitis, rhinitis)	43
Injury, poisoning and certain other consequences of external causes (e.g., allergies, trauma to various body parts)	37
Diseases of the digestive system (e.g., irritable bowel syndrome, acid reflux, hernias)	30
Mental and behavioural disorders (e.g., problems with anxiety, depression, and sleep)	20
Diseases of the nervous system (e.g., multiple sclerosis, epilepsy, carpal tunnel syndrome, migraines, sleep apnoea)	19
Symptoms, signs and abnormal clinical and laboratory findings, (e.g., headaches, chronic fatigue) not elsewhere classified	d 13
Diseases of the circulatory system (e.g., irregular heartbeat, stroke, circulatory problems)	12
Diseases of the genitourinary system (e.g., kidney stones, fertility problems, menopause)	12
Diseases of the skin and subcutaneous tissue (e.g., psoriasis, eczema)	11
Diseases of the eye and adnexa (e.g., eye strain, glaucoma)	8
Factors influencing health status and contact with health services (e.g., pregnancy, polio)	7
Neoplasms (e.g., various types of cancer)	5
Diseases of the blood and blood-forming organs and certain disorders (e.g., anaemia) involving the immune mechanism	5
Diseases of the ear and mastoid process (e.g., deafness, hearing loss)	4
Certain infectious and parasitic diseases (i.e., cold sores, mononucleosis, shingles)	3

Note. The diagnostic categories are rank-ordered according to their relative frequency (illnesses occurring more frequently occur at the top of the list). ICD-10 diagnostic categories with a frequency of zero are omitted.

Aggregate of Illnesses Ranked According to the ICD-10 Major Diagnostic Categories

Major Diagnostic Category	Frequency (n)
Diseases of the digestive system (e.g., ulcers, irritable bowel syndrome, acid reflux, hernias)	277
Diseases of the nervous system (e.g., migraines, multiple sclerosis, epilepsy, carpal tunnel syndrome, sleep apnoea)	2401
Mental and behavioural disorders (e.g., problems with anxiety, depression, and sleep)	197
Diseases of the circulatory system (e.g., hypertension, irregular heartbeat, stroke, circulatory problems)	187
Neoplasms (i.e., benign and malignant tumours)	125 ²
Diseases of the musculoskeletal system and connective tissue (e.g., back pain, sciatica, fibromyalgia, arthritis)	59
Endocrine, nutritional and metabolic diseases (e.g., diabetes, high cholesterol, thyroid disorders)	52
Diseases of the respiratory system (e.g., asthma, laryngitis, bronchitis, sinusitis, rhinitis)	43
Injury, poisoning and certain other consequences of external causes (e.g., allergies, trauma to various body parts)	37
Diseases of the genitourinary system (e.g., kidney stones, fertility problems, menopause)	36
Symptoms, signs and abnormal clinical and laboratory findings, (e.g., headaches, chronic fatigue) not elsewhere classifie	d 13
Diseases of the skin and subcutaneous tissue (e.g., psoriasis, eczema)	11
Diseases of the eye and adnexa (e.g., eye strain, glaucoma)	8
Factors influencing health status and contact with health services (e.g., pregnancy, polio)	7
Diseases of the blood and blood-forming organs and certain disorders (e.g., anaemia) involving the immune mechanism	5
Diseases of the ear and mastoid process (e.g., deafness, hearing loss)	4
Certain infectious and parasitic diseases (i.e., cold sores, mononucleosis, shingles)	3

Note. The diagnostic categories are rank-ordered according to their relative frequency (illnesses occurring more frequently occur at the top of the list). ICD-10 diagnostic categories with a frequency of zero are omitted.

¹ The majority of the cases reported in this category were migraine headaches (n = 221).

² The vast majority of cases reported in this category were benign growths or tumours (n = 100), whereas 25 cases were identified as malignant.

Impact of Work-Related Stress on Health

Item	M (SD)	Mdn		n (%)						Disagree n (%)
			StD	D	SID	SIA	Α	StA		
Often work when ill	4.61 (1.44)	5	48 (6.5)	41 (5.5)	29 (3.9)	152 (20.6)	234 (32.1)	235 (31.8)	621 (84.0)	118 (16.0)
Become ill due to work-related stress	3.64 (1.75)	4	139 (18.7)	104 (14.0)	44 (5.9)	179 (24.1)	151 (20.4)	125 (16.8)	455 (61.3)	287 (38.7)
Taken time off work due to work-related stress	2.86 (1.85)	2	279 (37.6)	115 (15.5)	57 (7.7)	106 (14.3)	90 (12.1)	95 (12.8)	291 (39.2)	451 (60.8)

Work-Related Illnesses Ranked According to the ICD-10 Major Diagnostic Categories

Major Diagnostic Category	Frequency (n)
Mental and behavioural disorders (e.g., mood, anxiety, and sleep problems)	97
Diseases of the digestive system (e.g., irritable bowel syndrome, ulcers, stomach acidity)	31
Diseases of the circulatory system (e.g., hypertension)	30
Diseases of the musculoskeletal system and connective tissue (e.g., neck and back pain, fibromyalgia)	27
Factors influencing health status and contact with health services (e.g., stress and burnout)	27
Diseases of the respiratory system (e.g., asthma, pneumonia, laryngitis, problems with vocal chords)	23
Injury, poisoning and certain other consequences of external causes (e.g., allergies, work-related injuries)	16
Diseases of the nervous system (e.g., migraines, tension headaches)	11
Symptoms, signs and abnormal clinical and laboratory findings, (e.g., chronic fatigue) not elsewhere classified	10
Endocrine, nutritional and metabolic diseases (e.g., high cholesterol, diabetes)	9
Certain infectious and parasitic diseases (i.e., colds, flu, mononucleosis)	4
Diseases of the genitourinary system (e.g., kidney stones, bladder problems)	4
Neoplasms (e.g., breast cancer)	2
Diseases of the blood and blood-forming organs and certain disorders (e.g., neoplasms) involving the immune mechanism	m 2
Diseases of the eye and adnexa (e.g., subjective visual disturbances)	2
Diseases of the skin and subcutaneous tissue (i.e., eczema, psoriasis)	2
Diseases of the ear and mastoid process (e.g., ear infection)	1

Note. The diagnostic categories are arranged hierarchically according to their relative frequency. Diagnostic categories with a frequency of zero are omitted.

Appendix F

Descriptive Data and Reliabilities for the Three Subscales of Measures of Work-Related Commitment

	TCM (Commitment to Organization/School)			Occupational Commitment Scale		
Subscale	М	(SD)	Reliability (a)	М	(SD)	Reliability (a)
Affective commitment	4.93	1.29	.83	5.78	0.96	.80
Normative commitment	3.92	1.29	.78	3.41	1.35	.83
Continuance commitment	3.61	1.34	.78	5.27	1.28	.82

Note. Both measures are based on the work of Meyer, Allen, & Smith (1993). A "total" commitment score was not calculated based on the recommendation of Meyer and Allen (2004).

Appendix G

Intentions Regarding Retirement

Item	M (SD)	Mdn	n (%)						Agree n (%)	Disagree n (%)
			StD	D	SID	SIA	Α	StA		
I intend to retire early	2.92 (1.74)	2	192 (26.7)	200 (27.8)	60 (8.3)	85 (11.8)	106 (14.7)	77 (10.7)	268 (37.2)	452 (62.8)
I have made preparations to retire early	2.66 (1.68)	2	245 (34.1)	193 (26.9)	39 (5.4)	99 (13.8)	88 (12.3)	54 (7.5)	241 (33.6)	477 (66.4)
I am committed to retire early	2.52 (1.62)	2	261 (36.5)	194 (27.1)	53 (7.3)	91 (12.7)	68 (9.5)	48 (6.7)	207 (29.0)	508 (71.0)



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