The primary intent of the study was to investigate the importance of particular background variables on three dimensions of burnout (emotional exhaustion, depersonalization, reduced personal accomplishment) for elementary (n=98), intermediate (n=163), secondary (n=162), and university (n=219) teachers. A secondary purpose was to delineate factors which teachers perceive as contributing most to feelings of work-related stress. While findings revealed sex and age to be the most salient background variables bearing on teacher burnout, their influence varied with teaching level and specific facet under study. Organizational factors related to the administration of educational institutions ranked high as a substantial contributor to feelings of stress by teachers at all levels of the educative system. Data from the study are appended and 30 references are included. (JD)
An Investigation of Factors Contributing to Teacher Burnout:
The Elementary, Intermediate, Secondary, and Postsecondary
School Environments

Barbara M. Byrne and Lisa M. Hall
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Paper presented at the American Educational Research
Association Annual Meeting, San Francisco, 1989

The authors wish to extend their gratitude to teachers of the
Carleton Board of Education who gave freely of their valuable
time to participate in this study.
Teacher Burnout

Abstract

The primary intent of the study was to investigate the importance of particular background variables on three dimensions of burnout (Emotional Exhaustion, Depersonalization, Reduced Personal Accomplishment) for elementary (n=98), intermediate (n=163), secondary (n=162), and university (n=219) teachers. A secondary purpose was to delineate factors which teachers perceive as contributing most to feelings of work-related stress. While findings revealed sex and age to be the most salient background variables bearing on teacher burnout, their influence varied with teaching level and specific facet under study. Organizational factors related to the administration of educational institutions ranked high as a substantial contributor to feelings of stress by teachers at all levels of the educative system.
An Investigation of Factors Contributing to Teacher Burnout: The Elementary, Intermediate, Secondary, and Postsecondary School Environments

Burnout, a term first introduced by Freudenberger (1974), denotes the inability to function effectively in one's job as a consequence of prolonged and extensive job-related stress. It is considered the final step in a progression of unsuccessful attempts to cope with negative stress conditions (see Selye, 1956). The syndrome is most strongly linked to those who work in the human service professions; these include, for example, social workers, teachers, nurses, police officers, physicians (see Maslach, 1982; Perlman & Hartman, 1982 for a review). Furthermore, the syndrome appears to be most critical for those who work in institutional settings (Ianni & Reuss-Ianni, 1983; Tosi & Tosi, 1970). Of late, clinicians have expressed grave concern for the escalating incidence of burnout among members of the teaching profession (e.g., Bloch, 1977; Mayou, 1987). Indeed, the increasing pervasiveness of the syndrome has led educational administrators to suggest that teacher burnout may be the most critical problem facing educators in the 1980's (Ricken, 1980).

Researchers have posited that teacher burnout is a function of stressors engendered at both the organizational and individual levels (Cooper & Marshall, 1976; Farber, 1983; Ianni & Reuss-Ianni, 1983; Iwanicki, 1983; Perlman & Hartman, 1982).
Additionally, there is growing evidence that moderating factors such as background variables play an important role in generating burnout among teachers (e.g., Anderson & Iwanicki, 1984; Beck & Gargiulo, 1983; Feitler & Tokar, 1980; Schwab, 1983; Schwab & Iwanicki, 1982); these factors involve personal (gender, age, years of experience, marital/family status), as well as environmental (grade taught, type of student taught) factors. Although the literature suggests their importance in explaining individual differences in particular dimensions of the syndrome, reported findings have been inconsistent. The primary purpose of the present paper, in broad terms, is to reexamine the impact of these background variables on burnout among teachers at the elementary, intermediate, secondary, and postsecondary school levels. A secondary purpose of the study is to identify factors perceived by teachers as contributing most to feelings of work-related stress.

The Concept of Teacher Burnout

The seminal research of Maslach and colleagues was the first of an empirical nature to investigate the phenomenon of burnout (for an historical summary, see Maslach and Jackson, 1981, 1984). Their findings were consistent in supporting a multidimensional construct comprising three related, yet independent components: (a) emotional exhaustion -- feelings of fatigue that develop as one's emotional energies become drained, (b) depersonalization -- the development of negative and uncaring attitudes toward others, and (c) reduced personal
accomplishment -- a deterioration of self-competence, and dissatisfaction with one's achievements.

These three elements of burnout have been empirically validated for elementary, intermediate and secondary school teachers (Belcastro, Gold, & Hays, 1983; Gold, 1984; Iwanicki & Schwab, 1981), and for university professors (Meier, 1984). Teachers are purported to exhibit signs of emotional exhaustion when they perceive themselves as unable to give of themselves to students, as they did earlier in their careers; depersonalization, when teachers develop negative, cynical and sometimes callous attitudes towards students, parents and colleagues; and feelings of reduced personal accomplishment, when they perceive themselves as ineffective in helping students to learn, and in fulfilling other school responsibilities. Overall, teachers who fall victim to burnout are likely to be less sympathetic toward students, have a lower tolerance for classroom disruption, be less apt to prepare adequately for class, and feel less committed and dedicated to their work (Farber & Miller, 1981).

**Background Variables Bearing on Teacher Burnout**

Research investigating the importance of particular background variables on teacher burnout have shown the following to be worthy of further study: gender, age, years of experience, marital/family status, grade(s) taught, and type of student taught. We turn now to a review of reported findings.

**Gender**. Except for the depersonalization facet, investigations of gender differences in teacher burnout have
yielded inconsistent findings. Depersonalization, however, has been shown to be significantly higher for males than for females across elementary and high school teachers (Anderson & Iwanicki, 1984; Schwab & Iwanicki, 1982). Whereas Maslach and Jackson (1981) reported significantly higher levels of emotional exhaustion for females than males among a wide variety of human service professionals, Anderson and Iwanicki (1984) found the reverse to be true for teachers; Maslach and Jackson (1985) and Schwab and Iwanicki (1982) found no significant differences. Finally, while Maslach and Jackson (1981) and Anderson and Iwanicki (1984) found significantly greater feelings of reduced personal accomplishment for females than for males, Maslach and Jackson (1985), and Schwab and Iwanicki (1982) reported no significant differences; in all cases, the absolute gender differences were small.

**Age.** Age appears to be a very salient differentiating variable with respect to the emotional exhaustion component of burnout. Young teachers have shown significantly higher levels of emotional exhaustion than their older colleagues (Anderson & Iwanicki, 1984; Maslach & Jackson, 1981; Schwab & Iwanicki, 1982). Findings are less consistent for the other two facets of the syndrome. While Maslach and Jackson (1981) found their young respondents to score significantly higher on the depersonalization and reduced personal accomplishment scales, Iwanicki and associates found no significant age differences in these dimensions for teachers.
Years of experience. Although years on the job would appear to be an important variable in terms of burnout, research findings do not support this notion. In their studies of teachers, Anderson and Iwanicki (1984), and Schwab and Iwanicki (1982) found no significant findings with respect to the emotional exhaustion and depersonalization dimensions. Anderson and Iwanicki reported significantly higher levels of reduced personal accomplishment for teachers in the 13-24-year group, than for any other group.

Marital/family status. The literature is quite consistent in reporting no significant effect of marital status, albeit a significant effect of family status on the incidence of burnout among other human service professionals (Maslach & Jackson, 1981, 1985; Schwab & Iwanicki, 1982). Individuals with children experience less burnout than those with no children, on all three aspects of the syndrome.

Grade level. There is some evidence in the literature to suggest that teacher burnout is more prevalent among high school, than among elementary school teachers (Anderson & Iwanicki, 1984; Feitler & Tokar, 1982; Schwab & Iwanicki, 1982a). Furthermore, investigations of specific aspects of burnout have yielded findings indicating that intermediate and high school teachers exhibit higher levels of depersonalization than their elementary school counterparts. Moreover, Anderson and Iwanicki (1984) found significant differences in feelings of reduced personal accomplishment; high school teachers
suffered the most from this aspect of the syndrome.

Type of student taught. Anecdotal studies of teacher burnout have suggested that, based on intensity of direct contact with children, special education teachers are likely more vulnerable to burnout than regular teachers. Research findings, however, have been inconsistent. For example, Beck and Gargiulo (1983) and Bensky, Shaw, Gouse, Bates, Dixon, and Beane (1980) found teachers of regular students to experience higher levels of burnout than teachers of children with learning disabilities; Olson and Matuskey (1982) found no significant differences between the two teacher groups.

From the literature reviewed, it seems evident that more work is needed to further delineate the major factors contributing to teacher burnout. Our present knowledge is limited for several reasons. First, while the teacher burnout literature is vast, there is a paucity of systematic empirical research on the topic; most studies have been of an anecdotal nature. Second, many studies have not considered the multi-dimensional structure of burnout and have reported findings based on global scores only. Third, no study has yet examined the impact of background variables for teacher populations that span four levels of the educative process. Finally, no study has yet summarized teacher-perceived stressors into factors and then compared them across teacher populations. The present study is designed to address these issues.
Method

Sample and Procedure

Participants in the study were 642 teachers from 6 elementary (n=98), 6 intermediate (n=163), and 4 secondary (n=162) schools, and one university (n=219) in Ottawa, Canada. By necessity, data collection procedures differed for the non-university and university samples. For the former, schools, rather than teachers, were randomly selected from one school district; administrative policy determined the number of participating schools and method of data collection. Subsamples of approximately 200 teachers were targeted for each of the elementary, intermediate, and secondary school levels. For the university sample, 400 professors were randomly selected from a master list of full-time faculty; a larger target number was used for this population in an attempt to minimize the known disproportionate male/female ratio of university professors. Questionnaires, together with a cover letter, detailed instructions, and a return envelope, were delivered to the principal of each participating school in the case of the non-university sample, and were mailed to each subject in the case of the university sample.

Instrumentation

The instrument developed to gather data for the present study was titled "The Teacher Stress Survey" (see also Schwab & Iwanicki, 1982) and consisted of three sections. Part A comprised eight items related to selected background variables.
Part B constituted the Educator's Survey version of the Maslach Burnout Inventory (MBI; Maslach & Jackson, 1986); based on a 7-point Likert scale (0 to 6), it is composed of 22 items measuring three components of burnout -- emotional exhaustion, depersonalization, and reduced personal accomplishment. Finally, Part C asked respondents to list factors related to their work which they believed contributed most to feelings of stress.

Exploratory factor analyses of the MBI have yielded three well-defined factors representing emotional exhaustion, depersonalization, and reduced personal accomplishment for helping professions in general (Firth, McIntee, McKeown, & Britton, 1985; Maslach & Jackson, 1981), and for teachers in particular (Beck & Gargiulo, 1983; Belcastro et al., 1983; Gold, 1984; Iwanicki & Schwab, 1981). Reported reliability findings have yielded internal consistency coefficients ranging from .76 to .90 (mean = .81) (Beck & Gargiulo, 1981; Belcastro et al., 1983; Iwanicki & Schwab, 1981; Maslach & Jackson, 1981), and subscale test-retest coefficients (Emotional Exhaustion .82; Depersonalization .60; Reduced Personal Accomplishment .80), based on a 2-4 week interval (Maslach & Jackson, 1981).

Finally, strong evidence of convergent validity has been reported for educators (Jackson, Schwab, & Schuler, 1986; Meier, 1984), as well as for other human service professionals (Maslach & Jackson, 1981). Discriminant validity, on the other
hand, is less clear. While evidence in support of discriminant validity has been illustrated by low and nonsignificant correlations between MBI scores and job dissatisfaction, and social desirability (Jackson et al., 1986; Maslach & Jackson, 1981), Meier (1984) reported substantially high correlations with factors of depression. These latter findings, notwithstanding, the literature generally provides adequately strong support for the MBI as a potentially reliable and valid measure of teacher burnout.

Analyses of the Data

The quantitative data (Parts A & B of the Teacher Stress Survey) were analyzed in three stages. First, for each group of educators, standard multiple regression procedures were used to identify variables explaining the most variance in each of the three facets of burnout. Second, for each statistically significant predictor variable, analysis of variance (ANOVA) procedures, with Bonferroni correction, were used to test for between-group differences. Finally, Tukey HSD post hoc comparisons were used to determine which between-group differences accounted for the overall level of significance.

The qualitative data (Part C) were manually tabulated and categorized into factors representing work-related stressors associated with teaching at each of the four institutional levels; these factors were subsequently rank ordered for each group.
Results

Background Variables

Means, standard deviations, and alpha internal consistency reliability coefficients for each burnout factor by teacher group are presented in Table 1. Except for the Depersonalization and Reduced Personal Accomplishment factors, as they relate to elementary school teachers, reliability coefficients for all MBI subscales were substantial and relatively consistent across groups.

Insert Table 1 about here

Although all five background variables -- sex, age, years of experience, marital/family status and type of student taught, were initially included in the standard multiple regression analyses, results indicated that the variable, years of experience, was acting as a suppressor; it was subsequently deleted from further analyses. This decision was based on: (a) its moderately high correlation with age (mean r = .74), (b) its low correlation with Emotional Exhaustion (mean r = .08), Depersonalization (mean r = .04), and Reduced Personal Accomplishment (mean r = .12), and (c) its frequent reversal of sign between the zero correlation and standardized beta values.

Subsequent multiple regression analyses revealed no background variables to be significantly related to the three factors of burnout for intermediate school teachers.
Significant findings related to the remaining groups are summarized in Table 2, and presented schematically in Figure 1.

Interestingly, background variables appear to bear more importantly on aspects of burnout for educators at the university level, than for those at either the elementary or high school levels. This is particularly so with respect to feelings of emotional exhaustion, to which gender, age and type of student taught are all contributing factors.

Each significant background predictor of burnout was subsequently tested using ANOVA procedures with Tukey post hoc comparisons where appropriate. With two exceptions, all between-group differences were found to be statistically significant; the exceptions were: type of student taught as it relates to emotional exhaustion, and marital/family status as it relates to depersonalization, for teachers at the university level. These results are presented in Table 3.
Stress Factors

The rank order of factors perceived by teachers as contributing most to their feelings of work-related stress are presented in Table 4. These open-ended responses revealed some interesting findings. First, it is clear that, irrespective of educational level, teachers share many similar frustrations: imposed time constraints, large class sizes, excessive administrative demands and paperwork, perceived lack of administrative support, and the need to "wear many different hats". Second, a common theme repeatedly expressed by teachers at the elementary and intermediate levels was the intense pressure they experienced from trying to meet the demands of many masters -- principal, parents, students, school board officials; they felt drained from the pull in many directions, with little reward in the form of support or recognition. Finally, while student-related problems were relatively high on the list of stress-inducing factors for intermediate and secondary school teachers, they were well down the list for university professors. For the latter, it seems evident that pressures associated with the conduct of research and the need to publish, ranked higher on their agenda.

Insert Table 4 about here
Discussion

Background Variables

Unfortunately, no background variable was found to be a significant predictor of burnout for teachers at the intermediate school level. However, this may be a consequence of confusion related to the operational definition of "intermediate". While the related questionnaire item identified grades 6-8 as those defining the intermediate level, in practice, the existence of a few intermediate schools as physically independent entities may have confounded the term; grades taught in these schools can be some variant of 6-8, 6-9, 7-8, or 7-9. The ensuing discussion, therefore, is limited to those teaching at the elementary, secondary, and university levels.

Sex. For each of these groups of educators, sex was found to be an important predictor of at least one facet of burnout. At both the elementary and university levels, female teachers exhibited significantly higher levels of emotional exhaustion than their male peers, while at the high school and university levels, male teachers demonstrated higher degrees of depersonalization and personal accomplishment, respectively. In general, these results support those reported by Iwanicki and colleagues (Anderson & Iwanicki, 1984; Schwab & Iwanicki, 1982), and Maslach and Jackson (1981); they run counter, however, to the Anderson and Iwanicki findings related to emotional exhaustion.
Age. Although consistent with the literature in showing younger teachers to experience more emotional exhaustion than older teachers, our results related to university professors only. Not unexpectedly, professors at the beginning of their careers, confronted with the hurdles of rank and tenure to surpass, demonstrated significantly higher levels of emotional exhaustion than their older, presumably well-established colleagues.

Although age was not found to be a significant predictor of depersonalization, it did contribute meaningfully to the prediction of reduced personal accomplishment for both elementary and university educators; in both cases, younger teachers exhibited significantly lower feelings of personal accomplishment than older teachers. For elementary teachers, the major difference lay between the 30-39, and 40-49 age groups, while at the university level, both age categories differed significantly from the 50 years and over group. Here again, the stage of one's career appears to have an important bearing on teachers' feelings of personal accomplishment. Typically, elementary teachers in their 30's are busy attaining the necessary certification for the administrative positions of principal, superintendent, and the like; by the 40's, these goals having been achieved, they perceive their accomplishments in a more favorable light. The same argument can be made for university professors, albeit the goals are somewhat different (i.e., rank, tenure, international recognition), and the time
span somewhat more extensive.

**Marital/family status.** This variable was found to be an important predictor of depersonalization at the secondary school level only. However, ANOVA follow-up procedures revealed no significant differences between married and unmarried teachers, nor between those who have children and those who do not. Thus, in contrast to Maslach and Jackson's findings regarding the importance of family status related to burnout among human service professionals (1981, 1985), but consistent with reported findings regarding marital status, we conclude that marital/family status has little import as a background variable bearing on the incidence of teacher burnout.

**Type of student.** It seems reasonable to expect that certain types of students generate high levels of stress and frustration for teachers; typically, these students require extra attention, discipline, and/or special care (e.g., learning disabled, low academic track). Although the anecdotal literature generally supports this notion, little quantitative empirical research has investigated the impact of this variable on experienced burnout among teachers.

Indeed, findings from this study revealed type of student taught to be a significant predictor of emotional exhaustion for university professors, and of reduced personal accomplishment for high school teachers. While it makes sense that, given the size of undergraduate classes, university professors who teach at this level should experience higher levels of
emotional exhaustion than those whose teaching is restricted largely to graduate students, between-group differences were not significant (p=.06). In contrast, at the high school level, teachers of vocational and learning disabled students demonstrated significantly lower feelings of personal accomplishment than those teaching students in the high academic stream.

Curiously, type of student taught had no significant bearing on emotional exhaustion for secondary school teachers. This may be a function of the fact that, typically, classes of vocational and learning disabled children are smaller than those for regular students. Furthermore, society's expectations for these children are less demanding than they are for regular academic students; this, in turn, may impose less pressure on their teachers.

**Stress Factors**

In general, although certain common stress-inducing factors were found across educators, (e.g., time constraints, number of students, multiplicity of expected roles), these results indicate, not unexpectedly, that teachers at the university level march to a different drummer than do their public school colleagues. Whereas the major contributors to stress for the latter tend to be largely student- and parent-related, those for university educators are linked to research and administrative tasks. Overall, results for the elementary, intermediate, and secondary school samples appear consistent
with findings reported in the many anecdotal studies for these school levels.

In summary, based on this study and other research, four facts seem abundantly clear: (a) burnout is a multidimensional construct, the facets of which are differentially affected by particular background variables, (b) sex and age are the most salient background variables associated with teacher burnout, (c) the grade level at which an educator is teaching bears importantly on the impact of these variables on aspects of burnout, and (d) organizational factors related to the administration of educational institutions contribute weightily to teacher stress at all levels of the educative system.

It is evident that current educational policy bearing on teachers’ work environments must change. But first, it remains the task of researchers to delineate the stress points in the educational structure. Future research should address the problem by investigating the nomological network of teacher burnout as it relates to the organizational (e.g., role conflict, decisionmaking power) and personal variables (locus of control, personality type) shown to bear importantly upon it.
References


Table 1

Means, Standard Deviations, and Cronbach Alpha Reliability Coefficients for Factors of Teacher Burnout

<table>
<thead>
<tr>
<th></th>
<th>Emotional Exhaustion</th>
<th>Depersonalization</th>
<th>Reduced Personal* Accomplishment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>α</td>
</tr>
<tr>
<td>Elementary</td>
<td>21.59</td>
<td>11.71</td>
<td>.90</td>
</tr>
<tr>
<td>n = 98</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intermediate</td>
<td>23.24</td>
<td>11.78</td>
<td>.92</td>
</tr>
<tr>
<td>n = 163</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secondary</td>
<td>21.27</td>
<td>10.71</td>
<td>.89</td>
</tr>
<tr>
<td>n = 162</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>University</td>
<td>17.80</td>
<td>10.46</td>
<td>.89</td>
</tr>
</tbody>
</table>

*Low scores indicate reduced personal accomplishment
Table 2

Standard Multiple Regression Analysis Results of Significant Background Predictors of Teacher Burnout

<table>
<thead>
<tr>
<th>Variable</th>
<th>R</th>
<th>R²</th>
<th>F-ratio</th>
<th>Standardized Beta</th>
<th>t-ratio</th>
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<td></td>
<td></td>
<td></td>
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<td>.26</td>
<td>.07</td>
<td>1.63</td>
<td>.223</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>University (n=219)</td>
<td>.33</td>
<td>.11</td>
<td>6.52***</td>
<td>.169</td>
<td>2.51*</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td>-.180</td>
<td>-2.71**</td>
</tr>
<tr>
<td>Student Type b</td>
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<td></td>
<td></td>
<td>-.127</td>
<td>-1.95*</td>
</tr>
<tr>
<td><strong>Depersonalization</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secondary (n=162)</td>
<td>.25</td>
<td>.06</td>
<td>2.64*</td>
<td>-.220</td>
<td>-2.72**</td>
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<tr>
<td>Sex</td>
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<tr>
<td>University (n=219)</td>
<td>.19</td>
<td>.02</td>
<td>1.97</td>
<td>.158</td>
<td>2.34*</td>
</tr>
<tr>
<td>Status c</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Reduced Personal Accomplishment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elementary (n=98)</td>
<td>.34</td>
<td>.12</td>
<td>3.03*</td>
<td>.313</td>
<td>3.16**</td>
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<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secondary (n=162)</td>
<td>.23</td>
<td>.05</td>
<td>2.25</td>
<td>.179</td>
<td>2.28*</td>
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<td>Student Type</td>
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</tr>
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<td>University (n=219)</td>
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<td>.08</td>
<td>4.61**</td>
<td>-.172</td>
<td>-2.50*</td>
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<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td>.186</td>
<td>2.76**</td>
</tr>
</tbody>
</table>

*p < .05     **p < .01     ***p < .001

*a* No background variables were significant for teachers at the intermediate school level.

*b* Type of student taught

*c* Marital/family status
### Table 3

**Analysis of Variance and Tukey Post Hoc Comparisons of Significant Background Predictors of Teacher Burnout**

<table>
<thead>
<tr>
<th>Variable</th>
<th>ANOVA</th>
<th>F-ratio</th>
<th>Group</th>
<th>Significant Between-Group Differences</th>
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<tr>
<td><strong>Emotional Exhaustion</strong></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Elementary Sex</td>
<td></td>
<td></td>
<td>Males/Females</td>
<td>Males vs. Females</td>
</tr>
<tr>
<td>University Sex</td>
<td>12.99***</td>
<td>(1,217)</td>
<td>Males/Females</td>
<td>Males vs. Females</td>
</tr>
<tr>
<td>Age</td>
<td>4.07**</td>
<td>(3,215)</td>
<td>20 - 29 years</td>
<td>30 - 39 years vs.</td>
</tr>
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<td></td>
<td></td>
<td>30 - 39 years</td>
<td>50 years and over</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>40 - 49 years</td>
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</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>50 years or over</td>
<td></td>
</tr>
<tr>
<td>Student Type^b</td>
<td>2.68</td>
<td>(2,216)</td>
<td>Undergraduate</td>
<td>None</td>
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<td></td>
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<td>Undergraduate/Graduate</td>
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<tr>
<td><strong>Depersonalization</strong></td>
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<td></td>
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</tr>
<tr>
<td>Secondary Sex</td>
<td>8.99**</td>
<td>(1,159)</td>
<td>Males/Females</td>
<td>Males vs. Females</td>
</tr>
<tr>
<td>University Status^b</td>
<td>1.40</td>
<td>(3,212)</td>
<td>Married - no children</td>
<td>None</td>
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<td></td>
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<td>Married - children</td>
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<tr>
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<td>Unmarried - no children</td>
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<td>Unmarried - children</td>
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<td><strong>Reduced Personal Accomplishment</strong></td>
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<tr>
<td>Elementary Age</td>
<td>3.16*</td>
<td>(3,94)</td>
<td>As above</td>
<td>30 - 39 years vs.</td>
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<td></td>
<td></td>
<td>40 - 49 years</td>
<td></td>
</tr>
<tr>
<td>Secondary Student Type</td>
<td>2.82*</td>
<td>(4,152)</td>
<td>High track academic</td>
<td>High track academic vs. Vocational and</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Low track academic</td>
<td>Learning disabled</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Vocational</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Gifted</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Learning disabled</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Combination</td>
<td></td>
</tr>
<tr>
<td>University Sex</td>
<td>9.58**</td>
<td>(1,217)</td>
<td>Males/Females</td>
<td>Males vs. Females</td>
</tr>
<tr>
<td>Age</td>
<td>4.14**</td>
<td>(3,215)</td>
<td>As above</td>
<td>30 - 39 years</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>40 - 49 years</td>
<td>50 years and over</td>
</tr>
</tbody>
</table>

*p < .05  **p < .01  ***p < .001

^b Type of student taught
^b Marital/family status
<table>
<thead>
<tr>
<th>Rank Order of Factors Perceived by Teachers as Contributing Most to Feelings of Work-related Stress</th>
</tr>
</thead>
</table>

**Elementary (n = 82)**

1. Excessive administrative paperwork
2. Time constraints
3. Number of students
4. Parents' expectations
5. Interactions with parents
6. Extracurricular and supervisory duties
7. Classes with students of varying abilities & needs
8. Lack of administrative/parental support & recognition
9. Excessive course loads; ever-changing curriculum
10. Multiplicity of roles expected to play

**Secondary (n = 138)**

1. Time constraints
2. Student attitudes and behavior
3. External personal factors
4. Lack of administrative/parental support & recognition
5. Apathy and increasing burnout of many colleagues
6. Sense of powerlessness
7. Number of students
8. Excessive administrative paperwork
9. Student discipline problems
10. Multiplicity of roles expected to play

**Intermediate (n = 148)**

1. Number of students
2. Time constraints
3. Parents' expectations
4. Excessive administrative paperwork and interference
5. Student attitudes and behavior
6. Multiplicity of roles expected to play
7. Extracurricular and supervisory duties
8. Lack of administrative/parental support & recognition
9. Student discipline problems
10. Apathy and increasing burnout of many colleagues

**University (n = 172)**

1. Time constraints
2. Publish/perish syndrome
3. Excessive administrative paperwork
4. Lack of administrative support and recognition
5. Multiplicity of roles expected to play
6. Budgetary constraints; limited resources
7. Number of students
8. External personal factors
9. Poor academic training of undergraduate students
10. Student attitudes and behavior
Figure Caption

Figure 1. Summary of Significant Background Predictors of Teacher Burnout$^{ab}$

\(a\)  
No background variables were significant for teachers at the intermediate school level

\(b\)  
Standardized beta regression coefficients

EE = Emotional Exhaustion

DP = Depersonalization

RPA = Reduced Personal Accomplishment

Type = Type of student taught

Status = Marital/family status
(a) Elementary School

(b) Secondary School

(c) University