

A CANADIAN-DUTCH COMPARISON OF TEACHERS' BURNOUT¹

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Summary.—Scores on burnout among 631 Canadian and 1,180 Dutch teachers were compared with various demographic variables (sex and age) and factors related to work (experience in teaching, type of school, and number of hours employed). Burnout was assessed with the Maslach Burnout Inventory of three dimensions, Emotional Exhaustion, Depersonalization, and Personal Accomplishment. Analysis indicated that, over-all, Canadian teachers reported higher scores on Emotional Exhaustion and Depersonalization than their Dutch peers. Differences in the number of hours employed were also significant: full-time Canadian teachers scored higher on Depersonalization than their Dutch colleagues. Across countries, sex and type of school appeared significantly related to burnout. Male teachers rated higher on Emotional Exhaustion and Depersonalization than the women. Especially with regard to the attitudinal components of burnout, i.e., Depersonalization and Personal Accomplishment, secondary school teachers reported higher scores than elementary school teachers. Age was not significantly related to measures.

Research on stress and burnout among teachers has received considerable attention in countries as diverse as Great Britain (e.g., Brown & Ralph, 1992; Cooper, 1995), the United States (e.g., Belcastro, Gold, & Grant, 1982; Byrne, 1991), Jordania (e.g., Friedman, 1991), South Africa (Pretorius, 1994), Canada (e.g., Wolpin, Burke, & Greenglass, 1991), Malta (e.g., Borg & Falzon, 1989), Australia (e.g., Punch & Tuettemann, 1991; Smith & Bourke, 1992), and The Netherlands (e.g., Van Ginkel, 1987). From the results of these studies teaching has been characterized as a particularly stressful occupation. Teachers experience stress from a variety of sources such as problems in interactions with students, e.g., disciplinary problems, students' misbehavior and lack of motivation (Borg & Falzon, 1989; Smith & Bourke, 1992; Hodge, Jupp, & Taylor, 1994; Boyle, Borg, Falzon, & Baglioni, 1995) and problems in relation to their school, e.g., poor organization of schools, and lack of technical and administrative support (Brown & Ralph, 1992; Smith & Bourke, 1992; Travers & Cooper, 1993). As a result, teachers might develop physical symptoms, e.g., headaches or peptic ulcers (Belcastro, *et al.*, 1982), psychological symptoms, e.g., depression and anger

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(Greenglass, Burke, & Ondrack, 1990; Punch & Tuettemann, 1991), and behavioral symptoms, e.g., lowered commitment to teaching and absenteeism (Cherniss, 1980; Blase, 1986). It is assumed that the burnout syndrome plays a role in the occurrence of these symptoms. Although little is known about the exact prevalence of burnout among teachers, burnout is regarded as a serious problem and is seen as a major contributor to absenteeism, turnover, and disability (Belcastro, *et al.*, 1982; Travers & Cooper, 1993).

Burnout is a concept used to characterize a reaction to long-term stress, which is specifically linked to the emotional strain of working frequently and intensively with other people. Particularly, professionals working in human services, e.g., nurses, physicians, social workers, and teachers, are vulnerable to burnout (Maslach, 1982). A striking example of burnout is given by a teacher describing her colleague who is disillusioned with her work: "Last year you could light up a house with her energy. Now a firefly would even brighten her flame . . ." (O'Connell Rust, 1994, p. 211).

The most widely accepted conceptualization of burnout is found in the work of Maslach and Jackson (1986). They considered burnout as a symptom of emotional exhaustion, depersonalization, and reduced personal accomplishment. Of these three dimensions, *emotional exhaustion* comes closest to an orthodox reaction to stress (Maslach & Schaufeli, 1993). Emotional exhaustion refers to a depletion of one's emotional resources and the feeling that one has nothing left to give to others psychologically. Such feelings are likely to occur when teachers show strong involvement with the personal and social needs of students. *Depersonalization* is described in terms of the development of indifferent and negative attitudes towards students in particular. It is assumed that teachers distance themselves from their students in order to cope with their feelings of emotional exhaustion. The third dimension of burnout involves a negative evaluation of one's *personal accomplishments* in working with other people. Teachers perceive themselves as less effective in their work, particularly with regard to teaching students.

In studies of burnout from North America and The Netherlands, rates of burnout are related to demographic variables such as sex and age (Anderson & Iwanicki, 1984; Van Ginkel, 1987; Greenglass, *et al.*, 1990; Van Poppel & Kamphuis, 1992) as well as to factors related to work such as experience in teaching, and type of school (Anderson & Iwanicki, 1984; Russell, Altmaier, & Velzen, 1987; Van Ginkel, 1987). However, across countries different results are obtained. North American data indicate that male teachers report higher scores on Depersonalization, whereas female teachers report higher scores on Emotional Exhaustion and lower scores on Personal Accomplishment (Anderson & Iwanicki, 1984; Russell, *et al.*, 1987; Greenglass, *et al.*, 1990). Slightly different results are found among Dutch teachers for whom feelings of emotional exhaustion are significantly higher for men

(Van Ginkel, 1987). No significant differences are found in personal accomplishment, whereas, similar to North America, men display higher scores on Depersonalization than women. Such higher scores of men are usually explained by the prescriptions of the masculine sex role. It is argued that men are taught that masculinity is equated with less display of emotion (Van Ginkel, 1987; Greenglass, *et al.*, 1990). Accordingly, men are more likely to distance themselves from the people whom they work with, particularly when under stress (Ogus, Greenglass, & Burke, 1990). Obviously, these sex-role prescriptions are not limited to a single culture so that men in both North America and The Netherlands would score significantly higher on depersonalization than women.

Several studies report on the relevance of age in the study of burnout among teachers. However, in both Dutch and North American studies it is suggested that experience in teaching rather than age is more strongly related to burnout. In North America, researchers generally conclude that younger teachers are more vulnerable to burnout than older teachers (Anderson & Iwanicki, 1984; Friedman, 1991). For instance, Anderson and Iwanicki (1984) found that teachers with less than twelve years of experience showed higher scores on Emotional Exhaustion and lower scores on Personal Accomplishment compared to teachers with more experience. Cherniss (1980) used the term 'early-career burnout' to indicate that less experienced teachers are more prone to burnout due to a discrepancy between their initial expectations and ideals with reality. Accordingly, feelings of incompetence among younger teachers can be indicative of a lack of experience in controlling classes, discipline, and how to motivate pupils and maintain their interest (Hart, 1987). In contrast, findings from The Netherlands suggest that more experienced rather than less experienced teachers are at greater risk of burning out (Van Ginkel, 1987). The longer they work as teachers, the more they become emotionally exhausted. This suggests a process of gradually wearing out. To date, no explanation has been offered for these cross-national differences in patterns of teachers' burnout related to experience.

Some studies show a significant relation between burnout and type of school; burnout seems to be more prevalent among secondary than among elementary school teachers (Anderson & Iwanicki, 1984; Russell, *et al.*, 1987). The former authors reported higher scores on Depersonalization and lower scores on Personal Accomplishment. Gold and Grant (1993) argued that secondary school teachers are more burned out because, compared with students from elementary schools, secondary school students are less interested and more difficult to motivate. Another confounding factor in higher rates of burnout among secondary school teachers is the number of male teachers in secondary schools. Over-all, men are more often employed in secondary

schools than women. As noted previously, male teachers report higher scores on Depersonalization than female teachers. Anderson and Iwanicki (1984) suggested that female teachers do not distance themselves from others easily, because they are more caring and show stronger involvement with others than men. This leads us to expect that, after controlling for sex, no effects will be found for type of school on burnout.

In several studies (e.g., Anderson & Iwanicki, 1984; Van Ginkel, 1987; Friedman, 1991) it was concluded that the number of hours employed is positively related to burnout. That is, full-time teachers reported higher scores on Emotional Exhaustion than part-time teachers. Full-time teachers have less time to spend on other activities than work, therefore it is not surprising that they have fewer opportunities to rest and refill their energetic resources.

The present study sets out to compare scores on Emotional Exhaustion, Depersonalization, and Personal Accomplishment among Canadian and Dutch teachers, taking into account sex, experience in teaching, type of school, and number of hours employed as potential confounders. To date, no direct cross-national comparisons have been made with regard to the relationship between teachers' burnout and above mentioned demographic variables and factors related to work. In the current study, four hypotheses were tested. (1) Across samples, men will report higher scores on Depersonalization. (2) High scores on measures of burnout would be more prevalent among more experienced Dutch teachers and less experienced Canadian teachers. (3) After controlling for sex, no cross-national differences in burnout would be found for type of school. (4) Across samples, full-time teachers would obtain higher scores on measures of burnout than part-time teachers.

METHOD

Samples

Sample of Canadian teachers.—The sample of Canadian teachers were 631 respondents of whom 348 were women and 283 men ($\chi_1^2 = .59$, ns). The respondents were employed in teaching within a single board of education in a large Canadian city. The average age of the respondents was 42.0 yr. ($SD = 7.9$). For men, the average age was 43.0 yr. ($SD = 7.5$) and for women 42.0 yr. ($SD = 8.1$) (for further details, see Burke & Greenglass, 1989).

Sample of Dutch teachers.—The sample of Dutch teachers consisted of 1,105 respondents of whom 421 were women and 684 men ($\chi_1^2 = 45.21$, $p \leq .001$). Although the Dutch sample included subsamples of teachers from six elementary and four secondary schools in different parts of The Netherlands, we expect limited variance in educational policies, since educational policies in this country are largely centralized. The average age of the respondents was 43.0 yr. ($SD = 7.8$). The average age for men was 44.0 yr. ($SD = 7.3$) and for women 42.0 yr. ($SD = 8.2$).

Table 1 shows demographic characteristics of both samples. The Dutch sample included more male and female teachers than the Canadian sample ($\chi^2 = 47.32, p \leq .001$). In the Dutch sample the numbers of teachers in all age groups are greater than the numbers of teachers in the Canadian sample ($\chi^2 = 42.91, p \leq .001$). Moreover, differences in years teaching are significant ($\chi^2 = 81.28, p \leq .001$). There are significantly more Canadian elementary school teachers and more Dutch secondary school teachers ($\chi^2 = 603.57, p \leq .001$). Moreover, the number of full-time and part-time teachers in the Dutch and Canadian samples differs significantly ($\chi^2 = 59.37, p \leq .001$), with full-time outnumbering part-time teachers. Significantly different associations observed between the two samples imply that in comparing rates of burnout among Canadian and Dutch teachers demographic variables, i.e., sex, and factors related to work, i.e., experience in teaching, type of school, and number of hours employed, should be controlled.

TABLE 1
DEMOGRAPHIC CHARACTERISTICS FOR SAMPLES OF DUTCH AND CANADIAN TEACHERS

Measure	Dutch Teachers		Canadian Teachers	
	<i>n</i>	%	<i>n</i>	%
Sex				
Men	684	61.9	283	44.8
Women	421	38.1	348	55.2
Total	1105	100.0	631	100.0
Age Group, yr.				
20-39	357	32.0	281	45.2
40-44	233	20.9	116	18.7
45-49	279	25.0	87	14.0
50-65	245	22.0	137	22.1
Total	1040	100.0	621	100.0
Teaching Experience, yr.				
< 10	316	29.0	89	14.0
10-20	458	42.0	369	59.0
> 20	317	29.0	172	27.0
Total	1091	100.0	630	100.0
Type of School				
Elementary	131	11.6	431	68.7
Secondary	996	88.4	196	31.3
Total	1127	100.0	627	100.0
Number of Hours Employed				
Full-time Teacher	676	75.6	576	91.0
Part-time Teacher	218	24.4	57	9.0
Total	894	100.0	633	100.0

Note.—Given missing data, the total number of respondents may vary slightly for different demographic variables.

Measures

Burnout among Canadian teachers was measured with the original in-

ventory (Maslach & Jackson, 1986). The Dutch (NL) version of the Maslach Burnout Inventory (Maslach & Jackson, 1986) for Educators (MBI-NL-Ed) (Schaufeli, Daamen, & Van Mierlo, 1993; Schaufeli & Van Horn, 1995) was used to measure burnout among Dutch teachers. Although in the Dutch version two weak items from the subscales Emotional Exhaustion (Item 16: "Working with people puts too much strain on me") and Personal Accomplishment (Item 12: "I feel very energetic") have been eliminated (Schaufeli, *et al.*, 1993), a 22-item version is used in the present study for reasons of compatibility with the original version. The Maslach inventory includes three subscales of Emotional Exhaustion (9 items, Canadian sample $\alpha = .91$; Dutch sample $\alpha = .88$), Depersonalization (5 items, Canadian sample $\alpha = .74$; Dutch sample $\alpha = .67$), and Personal Accomplishment (8 items, Canadian sample $\alpha = .82$; Dutch sample $\alpha = .80$). Each statement is rated on a 7-point scale ranging from 0 (a few times a year) to 6 (every day). Items in each subscale are summed to form a total score. High scores on Emotional Exhaustion and Depersonalization and a low score on Personal Accomplishment are indicative of burnout.

With regard to sample, Dutch teachers were rated 0 and Canadian teachers 1. As for sex, male teachers were rated 0 and female teachers 1. With regard to type of school, elementary school teachers were rated 0 and secondary school teachers 1. As for the number of hours employed, full-time teachers were rated 0 and part-time teachers 1.

RESULTS

Results are presented in three sections. In the first section descriptive statistics of the Maslach Burnout Inventory in both samples are presented. Hypotheses 1 and 2 and Hypotheses 3 and 4 are presented in the second and third sections, respectively.

Descriptive Statistics

In Table 2, mean scores and standard deviations are presented for the Dutch and Canadian teachers.

After controlling for demographic variables, *i.e.*, sex and age, and fac-

TABLE 2
MEANS, STANDARD DEVIATIONS, AND INTERCORRELATIONS OF SUBSCALE
SCORES OF THE MASLACH BURNOUT INVENTORY

Teachers	Subscale	<i>M</i>	<i>SD</i>	<i>N</i>
Dutch	Emotional Exhaustion	18.07	11.11	1084
	Depersonalization	5.84	5.19	1098
	Personal Accomplishment	34.50	8.29	1025
Canadian	Emotional Exhaustion	20.43	11.58	613
	Depersonalization	6.36	5.36	601
	Personal Accomplishment	35.29	8.18	594

tors related to work, i.e., experience in teaching, number of hours employed, and type of school, Canadian teachers reported significantly higher scores on Emotional Exhaustion ($F_{1,1457} = 19.50, p \leq .001$) and Depersonalization ($F_{1,1457} = 27.51, p \leq .001$). Differences in scores on Personal Accomplishment were *not* significant ($F_{1,1457} = 1.22, ns$). Intercorrelations between scores on Emotional Exhaustion, Depersonalization, and Personal Accomplishment differ slightly in the two samples. For Canadian teachers, scores on Depersonalization are more strongly related to those on Personal Accomplishment than for the Dutch teachers ($r_s = -.39$ and $-.17$, respectively). The intercorrelations of scores on Emotional Exhaustion and Depersonalization in both the Canadian and Dutch sample are more or less similar ($r = .59$ and $.58$, respectively). Slightly different intercorrelations are found for scores on Emotional Exhaustion and Personal Accomplishment in the Canadian ($r = -.33$) and Dutch ($r = -.23$) samples.

Despite the fact that, because of the large samples, all correlations between scores on the subscales are statistically significant ($p < .001$), it should be noted that only Emotional Exhaustion and Depersonalization share a considerable amount of variance, about 33%. Personal Accomplishment only slightly overlaps with Emotional Exhaustion (between 3% and 15% shared variance) and Depersonalization (between 5% and 11% shared variance).

Relations of Burnout and Demographic Variables For Canadian and Dutch Teachers

To examine the relationship between sex and scores on burnout in both samples, a multivariate analysis of covariance was executed with sample and sex as independent variables and the scores on the three subscales of the Maslach Burnout Inventory as dependent variables. To control for the effects of experience in teaching, type of school, and number of hours employed, these three variables were included as covariates.

Table 3 shows a multivariate main effect for sample and sex. Univariate analyses show significant differences between samples in scores on Emotional Exhaustion and Depersonalization. Canadian teachers reported significantly higher scores on Emotional Exhaustion ($M = 19.0$) and Depersonalization ($M = 6.4$) than their Dutch colleagues ($M = 16.5, M = 5.8$, respectively). Differences in scores on Emotional Exhaustion and Depersonalization were also significant with regard to sex. Across samples, men obtained higher scores on both Emotional Exhaustion ($M = 18.1$) and Depersonalization ($M = 6.9$) than the women ($M = 16.5, M = 4.9$, respectively). With this result our first hypothesis concerning sex differences is supported. Table 3 also shows a multivariate two-way interaction of sample by sex. Univariate analyses indicate that scores on Personal Accomplishment are significant. That is, female Canadian teachers reported significantly higher scores on Personal Accom-

TABLE 3
SCORES ON THE MASLACH BURNOUT INVENTORY AND SEX AMONG DUTCH AND CANADIAN TEACHERS

Source	Univariate, $F_{3,1445}$			Multivariate $F_{9,4335}$
	Emotional Exhaustion	Depersonal- ization	Personal Accomplishment	
Main Effects				
Sample	20.08‡	27.63‡	2.45	10.62‡
Sex	5.95*	45.22‡	.00	17.06‡
Two-way Interaction				
Sample × Sex	.12	.10	8.74†	3.10*

* $p < .05$. † $p < .01$. ‡ $p < .001$.

plishment ($M=31.4$) than their male peers ($M=30.5$). No significant differences in scores on Emotional Exhaustion and Depersonalization were found and the significant difference is less than 2 raw score points.

Burnout and Work-related Factors Among Canadian and Dutch Teachers

To examine the relation of scores on burnout to experience in teaching, type of school, and number of hours employed in both samples, a multivariate analysis of covariance was executed with sample, experience in teaching, type of school (elementary vs secondary), and number of hours employed as independent variables and the scores on the three subscales of the Maslach Burnout Inventory as dependent variables. To control for effects of sex and age, these variables were included as covariates.

The second hypothesis predicted that less experienced Canadian teachers and more experienced Dutch teachers would report higher scores on burnout. Accordingly, we expected an interaction of experience in teaching by sample; however, no such interaction effect was found; see Table 4.

Hypothesis 3 concerning type of school and scores on burnout is also not supported. We expected that there would be no effect of type of school on burnout scores after controlling for sex; however, the secondary school teachers obtained higher scores on Depersonalization ($M=6.2$) and lower scores on Personal Accomplishment ($M=29.8$) than elementary school teachers ($M=5.6$, $M=32.0$, respectively).

Our prediction was that, across samples, full-time teachers would report higher scores on burnout than part-time teachers (Hypothesis 4). This hypothesis was not supported. As can be seen from Table 4, multivariate analysis shows a significant two-way interaction of sample by number of hours employed. Univariate results indicate that differences in scores on depersonalization are significant. Full-time Canadian teachers had significantly higher scores on Depersonalization than their part-time colleagues. No significant differences were found in scores on Emotional Exhaustion and Personal Accomplishment.

TABLE 4
SUMMARY OF ANALYSES OF VARIANCE AND MULTIVARIATE ANALYSIS: SCORES ON BURNOUT WITH EXPERIENCE IN TEACHING,
TYPE OF SCHOOL, AND NUMBER OF HOURS EMPLOYED AMONG DUTCH AND CANADIAN TEACHERS

Source	Univariate, $F_{2,1438}$			Multivariate $F_{6,2874}$
	Emotional Exhaustion	Depersonalization	Personal Accomplishment	
Main Effects				
Experience in Teaching	2.54	1.33	2.43	1.33
Type of School	3.52*	6.75†	17.84‡	6.50‡
Hours Employed	.47	1.52	.09	.70
Sample	7.11†	70.4	3.39*	3.29*
Two-way Interactions				
Type of School × Experience in Teaching	1.77	.26	.54	.76
Hours Employed × Experience in Teaching	1.89	.49	1.12	.87
Hours Employed × Type of School	1.68	.32	.79	.66
Sample × Experience in Teaching	.80	.63	.81	.81
Sample × Type of School	.89	1.64	.22	1.87
Sample × Hours Employed	1.60	4.99*	.28	2.28*

* $p < .05$. † $p < .01$. ‡ $p < .001$.

In sum, Canadian teachers reported higher scores on Emotional Exhaustion and Depersonalization than Dutch teachers. Except for Personal Accomplishment, sex differences in scores for both Canadian and Dutch teachers were significant: male teachers had higher scores on Emotional Exhaustion and Depersonalization than their female colleagues. Experience in teaching was not related to scores on burnout. Except for Emotional Exhaustion, secondary school teachers had higher scores on burnout than elementary school teachers. The number of hours employed was not related to scores on Depersonalization; however, differences across samples occurred among Canadian teachers, full-time employment was related to higher scores on Depersonalization.

DISCUSSION

Our first hypothesis concerning sex differences in scores on Depersonalization, is supported: male teachers across samples had higher scores on Depersonalization than their female colleagues. Comparable results were obtained in studies among employees from other professions (e.g., Maslach & Jackson, 1982). Possibly, sex differences in scores on Depersonalization are more related to socialization processes than to a specific profession. Our results also indicate that men had higher scores on Emotional Exhaustion than women. It is possible that burnout is more prevalent among men because they have less effective coping strategies than women. As concluded by Greenglass, *et al.* (1990), women are better able to reduce burnout than men because of their "... greater investments in, and valuation of, friendship ..." and because they are more able to "... turn to and enjoy activities other than work, i.e., socialising, the arts, etc." (p. 23). Results from other studies are contradictory regarding differences in scores on Emotional Exhaustion and Personal Accomplishment. It seems that the only consistent sex difference appears on Depersonalization (Maslach & Jackson, 1982; Schwab & Iwanicki, 1982). From our study, results also indicate that in comparison with Dutch teachers and Canadian male teachers, Canadian female teachers had higher scores on Personal Accomplishment. Greenglass, *et al.* (1990) argued that social support at work functions as a buffer against burnout for women; however, the extent to which social support is available to women may depend on whether coworkers are predominantly male or female. Research reports that when women are in jobs in which women are predominantly found, they feel that their work is more important and experience more satisfaction related to accomplishment relative to women in male-dominated jobs (Greenfield, Greiner, & Wood, 1980). The distribution of male and female teachers in our samples shows that in Canadian schools the percentage of female teachers is greater than the percentage of Dutch female teachers: 55% and 38%, respectively. Possibly, our finding that Canadian fe-

male teachers feel more competent in their work could be related to the fact that they work in a more female-dominated environment.

We hypothesized (Hypothesis 2) that high scores on burnout would be more prevalent among more experienced Dutch and less experienced Canadian teachers; however, no significant results were obtained. It is possible that these less experienced Canadian and more experienced Dutch teachers left their profession because of the stress of teaching.

Contrary to our third hypothesis, secondary school teachers in Canada and The Netherlands showed higher scores on Burnout than elementary school teachers, after controlling for sex. They had higher scores on Depersonalization and lower scores on Personal Accomplishment. In the introduction, we had argued that the higher proportion of male teachers in secondary schools could account for this finding. After controlling for sex, consistent differences in type of school remain. Equity theory (Adams, 1965) could be relevant in explaining this finding. In this theory, investments and outcomes are regarded as important concepts in social exchange relationships with others. Adams (1965) stresses that people pursue reciprocity in exchange relationship: the ratio of investments to outcomes for the person in question should be in proportion to the investments and outcomes of the (real or hypothetical) other. When investments and outcomes ratios do not match, feelings of inequity are perceived. The relevance of imbalanced exchange relationships in the development of burnout has been recently reported in a study conducted by Schaufeli, Van Dierendonck, and Van Gorp (1996). With regard to our own results, it is possible that secondary school teachers reported higher scores on burnout because they had feelings of inequity.

Our final hypothesis (Hypothesis 4) that, across samples, full-time teachers would report higher scores on burnout than part-time teachers was not supported. However, a significant interaction of sample by number of hours was found for Depersonalization; higher scores on Depersonalization occur among Canadian teachers in full-time employment. It is possible that in The Netherlands teachers have greater possibilities to work part-time.

Over-all, after controlling for some relevant alternative variables, Canadian teachers reported higher scores on burnout than their Dutch colleagues. So far, no valid explanations have been proposed for these differences. It cannot be ruled out that sampling bias and response tendencies have played a role. For instance, both national samples may be unrepresentative as far as sex, occupation, work experience, and so forth are concerned.

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