

# Gender and age differences in occupational stress and burnout in the academic field

Stres i wypalenie zawodowe w środowisku akademickim – różnice płci i wieku

**Key words:** occupational stress, occupational burnout, academic staff.

**Słowa kluczowe:** stres zawodowy, wypalenie zawodowe, kadra akademicka.

Streszczenie. Artykuł prezentuje wyniki badania dotyczącego identyfikacji źródeł stresu zawodowego i wypalenia zawodowego w środowisku akademickim na przykładzie kadry trzech rumuńskich uczelni. Badanie przeprowadzono na próbie 70 nauczycieli akademickich. Szczególny nacisk położono na różnice w doświadczaniu stresu ze względu na płeć i wiek. Za najbardziej stresogenne uznano: obciążenie pracą, niskie wynagrodzenie, trudności z uzyskaniem awansu zawodowego, ingerencja zawodowa w życie rodzinne, konflikt między pracą badawczą a dydaktyką.

The aim of this study is to investigate the perceived sources of occupational stress and the professional burnout experienced by professionals working in three Romanian universities. A special emphasis is given to gender and age differences in experiencing stress. Two self-report measures were administered to a sample of 70 university teachers, a self-report rating scale of specific occupational sources of stress and the Maslach Burnout Inventory (MBI; Maslach and Jackson, 1993). The most highly rated sources of stress were: workload, low pay, difficulties in career advancement, profession interference with family life, conflict between research and didactic activities. Female teachers experienced significantly higher levels of occupational stress, specifically regarding the interaction with colleagues and the conflict between work and family. Also women record significantly higher scores on the MBI emotional exhaustion subscale than men. Younger teachers experienced higher levels of stress especially regarding the discrepancy between demands and competencies, the reduced feedback, the interference between professional and

personal life, while older teachers experienced higher levels of stress regarding the recognition they feel they receive from the society, the problems in interaction with students – lack of interest, low attainment. The findings have implications in designing prevention programs for reducing occupational stress, taking into account how professionals perceive stress at work.

**Introduction.** Traditionally, universities were seen as collegial communities where the faculty members enjoyed professional autonomy, the staff members had the freedom to set their own goals and priorities according to criteria set by the disciplines, rather than by the institutional needs of their employing organizations (Harley et al 2004). During the last two decades, a number of substantial changes in the higher education sector emerged (Teichler, 2007). Almost all the universities, the Romanian universities as well, are now setting new goals to compete with other universities and to enhance institutional rankings. Increased globalization and international competition has made the role of faculty members more complicated and more challenging. The faculty members are expected to play many roles other than as teachers and researchers, they are also being asked to be more entrepreneurial, to bring research grants and contracts to their institutions, for instance. This makes the faculty members to do more administrative work apart from teaching, having a significant impact on the quality of their work life. Therefore, higher education institutions no longer provide the low stress working environments that they once did. Academics throughout the world deal with a substantial amount of ongoing occupational stress (Kinman, 2001).

**Occupational stress and professional burnout.** Occupational stress is defined as the adverse reaction people have due to excessive pressure or other types of demand on them (Health and Safety Executive, 2005). Occupational stress and its consequences upon individuals and organizations have been popular topics in research literature because stress is a major factor that contributes to low job satisfaction, absenteeism, and high turnover rates.

The most relevant studies about academic stress come from researches carried out in the USA, UK, New Zealand and Australia (Blix, Cruise, Mitchell & Blix, 1994; Doyle & Hind 1998; Kinman & Jones 2003). In a study on stress in seven New Zealand universities, Boyd, and Wylie (1994) reported that half of the academics in their sample „often or almost always” found their work to be stressful, and 80% of them believed that their workload had increased and become more stressful in the last years. In their research on occupational stress among university teachers, Blix et al. (1994) found out that two third of the university members reported that they perceived job stress at least half of the scheduled time. Faculty members also expressed burnout, health problems caused by job stress, decreased work performance, and low capacity to manage the work stress. Research conducted in the UK, USA, Australia, and New Zealand has identified a number of key factors commonly associated with stress among academics (Gillespie et al, 2001). These factors include: work overload; time constraint; lack of promotion opportunities; inadequate social recognition; inadequate

salary; changing professional role; poor management practices; inadequate resources and funding; student interaction issues (Gillespie et al, 2001; Blix, et al, 1994; Boyd, and Wylie, 1994; Hind, and Doyle, 1996; Melendez and de Guzman, 1996). Other sources of stress, such as work-related technology (Totten & Schuldt, 2009), family life and work balance (Korotkov et al, 2008), control over the work environment (Golnaz, 1997) have been highlighted in several studies. The most stressful aspects of the job perceived by teachers include workload, time pressures and no guidance pertaining to various teacher roles and responsibilities (Hui & Chan, 1996).

Excessive exposure to stressful professional situations could lead to burnout, a work-related syndrome that causes physiological, emotional, and psychological exhaustion. Maslach, Jackson & Leiter (1996) described burnout among professors referring to three dimensions: emotional exhaustion (EE), depersonalization (DP), and personal achievement (PA). Burnout has a high probability of occurring to those who are engaged in professions that require human interaction. It not only affects one's physiological and mental health, but also leads to a decrease in the quality of service provided (Chang, Lin, Huang, Tseng, 2014).

**Occupational stress and professional burnout in relation with the demographic factors – gender and age.** Applied within the academic context, men and women have different perceptions of work stress and burnout. Steel (1988) pointed out that female academics felt more severe work stress than did their male counterparts. A study by Doyle & Hind (1998) found similar results among university professors, in which female academics perceived more stress than their male colleagues. Comparable findings have been reported in burnout research as well. Tumkaya (2006) found that female professors felt more serious emotional exhaustion than their male counterparts did. Other studies support these conclusions, pointing out that women educators often report higher levels of exhaustion than their male colleagues, whereas the latter are more depersonalized (Byrne 1991; Jackson et al. 1993; Lackritz 2004). In another studies, Doyle and Hind (1998) and Bilge (2006) also confirmed the higher incidence of depersonalization among male academics. However, some studies found that, although men perceive more depersonalization than women do, there were no differences between genders in the dimension of personal achievement (Tumkaya, 2006).

Concerning the implications of age in experiencing burnout, younger university members report higher levels of burnout (Cordes and Dougherty 1993), although authors like Schaufeli and Van Dierendonck (2000) sustain that this phenomenon is prevalent among older age groups as well. In particular, younger academics experience higher levels of exhaustion than their older counterparts (Byrne 1991; Jackson et al. 1993; Lackritz 2004). Other studies link age with work experience. Burnout appears to be a risk factor earlier in one's career. For example, Blix et al. (1994) reported higher exhaustion scores for less experienced academics, than for those with longevity of service. Azeem and Nadir (2008) identified that university lecturers experience moderate levels of emotional exhaustion, significantly different from associate professors and professors, the explanation being that the lecturers have

a smaller experience, have a higher teaching load, have also administrative roles and are required to teach subjects that are not necessarily their preferences or their choice. The study identified that all three categories recorded a low sense of depersonalization and a high sense of personal fulfilment, reflecting a generally low level of the burnout state. The explanation offered by the authors is that these categories of teachers have a strong sense of professional effectiveness, possess the skills to effectively and efficiently manage the problems they face, they have a solid feeling of their professional value.

### **Objectives of the study**

- To find and compare the significance of difference between the mean scores of male and female university teachers on professional burnout and on various dimensions of occupational stress: a) working conditions, b) role-over load and role conflict c) peer relation, d) teacher – student interaction, e) management practices, f) promotion opportunities, g) job security, h) change management etc.
- To determine whether there are significant differences between young, middle-aged and older employees regarding their experiences of burnout and work stress.

**Method.** Two self-report measures were administered to a sample of 70 Romanian university teachers: a self-report rating scale of specific occupational sources of academic stress (SPSA Questionnaire) and the Maslach Burnout Inventory (MBI; Maslach and Jackson, 1993).

SPSA Questionnaire consists of 56 items belonging to 9 categories of stressful factors. Each source of pressure is measured on a scale ranging from 1 to 6 (score 1 indicates a low pressure of the source and 6 shows that the item is perceived as being very stressful).

The statistical analysis was carried out using the SPSS Program. The reliability and validity of the SPSA and MBI were determined by means of Cronbach alpha coefficients. Descriptive statistics (i.e. means, standard deviations, correlations, T-test) were used to analyse the data. The Cronbach alpha coefficient of .93 for the SPSA instrument demonstrates a good fidelity of the questionnaire's items. We also calculated the internal consistency coefficient through the split – half method and got a value of .87 for the first half, respectively .90 for the second; it can be inferred that there is a very good internal consistency for each part of the questionnaire. Internal validity of the instrument was verified by calculating correlations between scores for each subscale and final scores of the SPSA questionnaire. Table 1 shows the correlation coefficients. Concurrent validity was assessed by calculating the coefficient of correlation between the total score obtained for SPSA and the scores obtained for the burnout variable: emotional exhaustion ( $r = .371, p < .01$ ) and personal achievement ( $r = -.273, p < .05$ ).

To measure the three dimensions of burnout syndrome were used three different scales. Thus, emotional exhaustion scale (EE) can range from 0 to 54, the depersonalization scale (DP) can range from 0 to 30 and personal accomplishments scale (PA) from 0 to 48. High scores for the first two scales reflect a high level of

burnout, while a high score for personal accomplishments scale indicates low levels of burnout. The following table captures burnout levels (low, moderate, high) depending on their score:

**Table 1. Correlations between total scores and subscales scores of the SPSA Questionnaire**

Variables	1	2	3	4	5	6	7	8	9	10
1. SPSA Total score	1.00									
2. Personal values vs. system values	.489*	1.00								
3. Professional relations	.781*	.367*	1.00							
4. Teacher – student interaction	.788*	.285*	.474*	1.00						
5. Work conditions	.875*	.322*	.554*	.651*	1.00					
6. Role ambiguity	.679*	.216	.561*	.378*	.616*	1.00				
7. Management practices	.737*	.166	.510*	.517*	.749*	.384*	1.00			
8. Promotion opportunities	.629*	.426*	.421*	.346*	.470*	.515*	.369*	1.00		
9. Job security	.638*	.163	.445*	.430*	.470*	.513*	.363*	.514*	1.00	
10. Change management	.642*	.311*	.421*	.390*	.538*	.420*	.456*	.532*	.584*	1.00

\* p < .05; \*\* p < .01

**Table 2. Levels of burnout for the three subscales of the MBI (Maslach Burnout Inventory)**

Level	Emotional extenuation (EE)	Depersonalization (DP)	Personal accomplishments (PA)
<i>High</i>	over 24	over 9	0 – 35
<i>Moderate</i>	14 – 23	3 – 8	36 – 42
<i>Low</i>	0 – 13	0 – 2	over 43

**Results.** Women obtain higher scores for all perceived stress subscales; all work situations described in the questionnaire are perceived as having a greater potential for

stress in women' opinion, but significant differences are recorded for work aspects related to role conflict (family life versus professional life), interpersonal relationships, promotion opportunities, poor remuneration, contradiction between research and teaching. *Table 3* presents the T-test results. Some of these results highlight the orientation of women towards relationships and teamwork, so that when these are faulty, they are felt more acutely as pressures. The fact that women invest a great importance in relationships can be explained by the differences in the way of developing the gender identity, more specifically, the existence of different expectations for women and men included in the gender-role. Thus, for men, identity development relies on autonomy, the achieved independence meaning developing assertiveness, the spirit of competition and following his own interest, while for women, identity develops through cultivating responsibility and attachment as specific aspects of interacting with others.

**Table 3. Gender differences in perceiving the sources of stress**

Sources of stress	Males		Females		t	p	d
	mean	$\sigma$	mean	$\sigma$			
Conflict between research and didactic activities	3,96	1,59	5,05	1,31	-3,09	.003	-1,08
Work – family conflict	4,21	1,24	5,13	0,85	-3,57	.001	-.92
Professional activity vs. personal life	3,51	1,69	5,05	1,07	-4,46	.000	-1,53
Interpersonal relations	3,03	1,40	3,86	1,61	-2,31	.025	-.83
Recognition of professional competence	2,54	1,34	3,67	1,49	-3,32	.001	-1,13
Sharing relevant information	2,84	1,67	3,83	1,59	-2,52	.014	-.98
Lack of feed-back	3,69	1,44	4,62	1,23	-2,86	.006	-.92
Reduce availability of colleagues for collaboration	3,39	1,67	4,29	1,57	-2,31	.024	-.90
Taking the criticism personally	2,51	1,30	3,32	1,73	-2,22	.030	-.80
Difficult access to recent information in the domain	2,75	1,52	3,78	1,37	-2,94	.004	-1,02
Uncertainties related to professional responsibilities	3,12	1,45	4,35	1,35	-3,64	.001	-1,23
Poor work procedures	3,18	1,21	4,35	1,31	-3,87	.000	-1,16
Difficult promotion	4,42	1,27	5,27	0,93	-3,13	.003	-.84
Lack of support from the management	3,06	1,36	4,05	1,82	-2,59	.012	-.99
Rapid changes in the educational system	3,78	1,40	4,48	1,26	-2,17	.033	-.69
Insufficient preparation for the change	3,06	1,41	3,83	1,48	-2,24	.028	-.77

The teachers from the age category of over 51, with a professional experience of over 25 years recorded a total score for the assessment of professional stressful sources that is lower compared with their younger colleagues, although the difference is not statistically significant. Youths, particularly those with less seniority at work (aged between 25 and 35), perceive as pressing sources like: lack of skills ( $F = 4.13$ ;  $p = 0.02$ ), insufficient feedback ( $F = 6.93$ ;  $p = 0.002$ ), poor promotion opportunities ( $F = 4.63$ ;  $p = 0.013$ ), poor remuneration ( $F = 7.06$ ;  $p = 0.002$ ) and professional – personal life interference ( $F = 3.62$ ;  $p = 0.03$ ).

We obtained significant differences between the young and older teachers regarding their interaction with students. These categories more often face with the problem of motivating the students, the young category having difficulties in earning the authority provided by competence, and the older teachers probably being more resistant to change and less willing to diversify the teaching strategies. These two categories perceive as pressing sources like: testing teacher permissiveness ( $F = 3.86$ ;  $p = 0.026$ ), students' attendance to classes in syncope ( $F = 3.02$ ;  $p = 0.05$ ), taking personally the criticism and grievances of students ( $F = 5.03$ ;  $p = 0.009$ ).

Regarding the burnout syndrome, mean scores and standard deviations obtained by our group for the three subscales are: emotional exhaustion – 16.52 (8.86); depersonalization – 3.55 (2.48); personal accomplishments – 38.31 (5.64). The results indicate a moderate level of burnout experienced by the subjects of this lot. These results are consistent with some of the results obtained by other authors (Hogan and McKnight, 2007; Lakritz, 2004; Doyle and Hind, 1998; Blix et al., 1994) and are very close to the normative data provided by Maslach et. al (1996) for higher education (EE – 18.57; DP – 5.57; PA – 39.17).

The gender factor brings a number of differences. Women record higher score than men for emotional exhaustion –  $t(68) = 5.12$ ;  $p < .000$ , and lower scores for personal accomplishments –  $t(68) = 1.97$ ;  $p < .052$ . These issues demonstrate that women experience the state of burnout in a greater extent than men. As for depersonalization, men report higher means, but the difference is not statistically significant. The conclusion that women are more emotional exhausted than men corresponds to the classic gender stereotype according to which women express their emotions both positive and negative to a greater extent than the representatives of the male gender who suppress their emotions. Marini (1989) explains the higher level of burnout of women: in positions that traditionally were dominated by representatives of the male gender, women have to work harder to achieve success, therefore, energy consumption is higher.

Demographic variables like age or seniority do not produce differences for any of the investigated subscales. Although the mean scores grow progressively with age, the differences are not statistically significant.

We tried to differentiate between the results according to academic title, which is why teaching grades were classified as „low” titles (junior assistant, assistant, lecturer) and „high” titles (associate professor, professor). Although the difference is not statistically significant, emotional exhaustion mean score is higher for lower titles, the effort to build a career having its costs. In contrast, the mean score for personal

accomplishments is significantly higher for higher positions ( $t(68) = 2.55, p < .013$ ), a normal situation, since they are associated with the majority of material and spiritual benefits of the academic environment.

**Discussion.** The study aimed to investigate the perceived sources of occupational stress and the professional burnout experienced by professionals working in three Romanian universities, with a special emphasis on gender and age differences in experiencing academic stress. We found out that female teachers experienced significantly higher levels of occupational stress, specifically regarding the interaction with colleagues and the conflict between work and family. Also women record significantly higher scores on the MBI emotional exhaustion subscale than men. According to Chang et al (2014), the reasons may be that female professors not only have time constraints at work, but also have to devote time and effort to their families. Under these situations, women may have difficulty progressing in their professional fields. Younger teachers experienced higher levels of stress especially regarding the discrepancy between demands and competencies, the reduced feed-back, the interference between professional and personal life, while older teachers experienced higher levels of stress regarding the recognition they feel they receive from the society, the problems in interaction with students – lack of interest, low attainment. To develop academically, young teachers must speed up their field development, improve their professional knowledge, and conform to the requirements of evaluation on professional development (Chang et al, 2014).

Nowadays universities are engaging in human resource strategies designed to enhance institutional rankings rather than provide the opportunities that all academics need to increase the knowledge and skills, and hence reputation (Harley et al 2004). Usman et al (2011) suggest that if universities want to protect and satisfy their human resources, the teachers, they need to reduce the stress level and help teachers, through various programs to cope with their work stress experienced largely because of the conflicting demands placed on them and because of the ambiguity in assuming their roles.

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