

## Research paper

# Demographic and situational variations in levels of burnout in European mental health services: a comparative study

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### ABSTRACT

This paper reviews the demographic and situational variations in levels of occupational burnout, as measured by the Maslach Burnout Inventory, among community and inpatient staff in six European mental health services, located in Aarhus and Storstrom in Denmark, Cambridge in the UK, Bodo in Norway, Tampere in Finland and Warsaw in Poland. The overall study design was a time series with baseline and follow-up at six and 12 months. A total of 414 members of staff were assessed in the six settings: 205 in inpatient facilities and 209 in the community. To calculate the influence of socio-demographic factors in relation to levels of burnout, a factor analysis was carried out. Each factor was analysed twice. There were no statistically significant differences regarding emotional exhaustion. Depersonalisation (DP) was higher in inpatient settings (1.73, standard error (SE) 0.04) than in community locations (1.62, SE 0.04). The lowest

scores for DP for inpatient settings were observed in Aarhus (1.59, SE 0.08) and in Storstrom (1.65, SE 0.08). Regarding personal accomplishment (PA) the statistically significant differences were observed between Warsaw, which scored high in PA (39.92, SE 3.63), and Storstrom (76.36, SE 4.60), which scored low. Staff who had previously experienced relevant prior training on occupational stress reduction scored significantly lower in emotional exhaustion (EE) (3.75, SE 0.13) than those with no prior exposure to relevant training (4.07, SE 0.07). The study also indicated that men in the study scored significantly higher on DP (1.75, SE 0.05) than did women (1.60, SE 0.03). This may be explicable in terms of men being exposed to higher levels of violence than women.

**Keywords:** burnout, mental health, mental health staff

## Introduction

In the European Union (EU) over the last decade, work-related stress has been consistently identified as one of the major workplace concerns; a challenge not only to the health of working people but also to the healthiness of their organisations. Much evidence suggests that stress and burnout are widespread among the European workforce. For example, in the European Foundation's 1996 and 2000 surveys of working conditions, 28% of the workers reported stress-related problems, a figure exceeded only by the 33% who complained of back pain problems (European Foundation for Improvement of Living and Working Conditions, 1996, 2000). Furthermore, studies in the EU and beyond (Cox *et al*, 2000) suggest that between 50% and 60% of all lost working days are related to stress. Work-related stress, its causes and consequences are all very common in the EU Member States. Data published by the European Commission in the *Report on Work-related Stress* (1997) suggest that more than half of the European workers surveyed admitted to working under considerable pressure. More than one-third did not have the freedom to organise their tasks, and more than one-quarter did not have a say when it came to deciding on their patterns of work. Furthermore, 45% claimed that they carried out monotonous tasks, and 50% short repetitive tasks. Such work-related 'stressors' are likely to have contributed to the present spectrum of ill health: 15% of the workforce complained of headache, 23% of neck and shoulder pains, 23% of fatigue, 28% of 'stress', and 33% of backache (European Foundation for Improvement of Living and Working Conditions, 1996, 2001). Work-related stressors also contribute to many other diseases, even to life-threatening ones (European Foundation for Improvement of Living and Working Conditions, 2001). Both these European Foundation surveys targeted 1000 workers per country, using a multistage random sampling approach. Jones *et al* (1998) found that 26.6% of respondents ( $n = 39\ 000$ ) in their questionnaire-based survey of the working population reported suffering from work-related depression or anxiety, or a physical condition that they attributed to work-related stress. They also estimated that 19.5 working days were lost due to stress-related illnesses per year. It appears that work-related stress and burnout are significant impediments to job satisfaction and healthy psychosocial functioning, and can alter the behaviour of the people involved, impairing the quality of their lives and damaging their health.

### Burnout: a definition

Burnout has been defined as 'a syndrome of emotional exhaustion, depersonalization and a reduced sense of

personal accomplishment, which can occur among individuals who work with people in some capacity' (Maslach and Jackson, 1986, p.32). Burnout is a state of physical, emotional and spiritual fatigue, and it is caused by a long-term commitment to demanding situations (Pines, 1993). It is described as a sense of helplessness and hopelessness, low energy level, chronic tiredness, fatigue, and a feeling of being trapped. Typical also are negative feelings about self, work and life (Hillhouse *et al*, 2000). One of the consequences of these symptomatic effects can be a severe disruption or dislocation of the therapeutic relationship between the service provider and client (Cherniss, 1980; Maslach, 2000).

Maslach and Jackson (1986, p.61) operationally defined burnout in terms of three factors:

- *emotional exhaustion*: 'Feelings of being emotionally over-extended and depleted of one's emotional resources'
- *depersonalisation*: 'Negative, cynical attitudes and feelings about other people often including a loss of idealism'
- *personal accomplishment*: 'Feelings of competency, self-efficacy and productivity at work'.

High levels of burnout are correlated with high scores in emotional exhaustion and depersonalisation, and low scores in personal accomplishment (Maslach, 2000).

A number of theoretical models of burnout have been developed including: social support (Pines and Maslach, 1978); self-efficacy (Cherniss, 1980); the protection of resources (Hobfoll, 1989); the inequity theory (van Dierendonck *et al*, 1996); the social comparison model (Schaufeli and Enzmann, 1998); and the phase model (Golembiewski *et al*, 1998). Sources of burnout include organisational, interpersonal and personal factors. Organisational factors may consist of a lack of positive feedback about one's job performance, lack of autonomy and control in carrying out one's job, lack of participation in organisational decisions, conflicting role demands, ambiguity about one's job role, faulty management and supervision and work pressure (Savicki and Cooley, 1987). Interpersonal factors may include a heavy caseload, working too much time with clients or patients and lack of work team support (Maslach and Jackson, 1984). Personal factors relate to unrealistic or unmet job expectations and lack of ideological commitment or moral purpose in work (Cherniss, 1980). Those with low self-confidence, lack of assertiveness, inability to set limits, external locus of control and a strong need for approval by others are more prone to develop the symptoms of burnout (Capel, 1987).

## Burnout in the mental health workforce

Maslach (2000) argued that mental health workers face burnout by the very nature of their profession. A primary professional expectation of the mental health workforce is that they should care for their clients through the provision of an effective therapeutic relationship. Burnout can provide a major threat to the legitimacy and sustainability of that relationship. The working conditions that mental health workers face are likely to increase the possibility of burnout: many inpatient wards are severely overcrowded and operating with bed occupancy levels above what is accepted as safe; the incidence of violence in the mental health workplace is high; increased workloads, under-staffing, job insecurity and continuing rapid organisational change have all been put forward as major sources of burnout among mental health professionals, and confirmed by a number of studies (Lee and Wang, 2002; Leiter and Harvie, 1996; Sullivan, 1993).

## Demographics and burnout

There is conflicting evidence about those most likely to experience burnout. For instance, Thomsen *et al* (1999) found that the male mental health workers in their study faced violence in their work more often than women and therefore they were more stressed. Hannigan *et al* (2000) found that male nurses were more cynical, and demonstrated higher scores in the depersonalisation subscale of the Maslach Burnout Inventory (Maslach and Jackson, 1986; Maslach *et al*, 1996). However, some studies (for example, Parry-Jones *et al*, 1998; Thornton *et al*, 1992) have found no correlation between gender and burnout.

In a second example, Cushway *et al* (1996) reported that younger and less experienced psychologists were more stressed when working with patients. Young nurses were also discovered to be more exhausted (Fielding and Weaver, 1994; Melchior *et al*, 1997). On the other hand, other studies (Schulz *et al*, 1995; Wykes *et al*, 1997) found that age was not necessarily correlated with burnout.

Finally, there are complex linkages between professional background and burnout, in that there are contradictory findings between studies. For example, Prosser *et al* (1996) reported that nurses and social workers were more stressed than other caring professions in their study. However, Thomsen *et al* (1999) found that psychiatrists were more exhausted than nurses. Töyry (2001) found that psychiatrists suffered more from burnout than did other physicians. On the other hand Wykes *et al* (1997) and Thornton (1992) found no relation between professional occupation and burnout.

## The aims of the study

The Occupational Stress with Mental Health Clients in Acute Response (OSCAR) study aimed to:

- compare, across six European mental health services, the levels of occupational stress and burnout among mental health workers in acute psychiatric hospital and community settings
- consider the aetiological factors that precipitate the occurrence of patients' violent behaviour
- examine the efficacy of risk-management strategies
- develop and evaluate effective stress-reduction training packages.

The outcomes of the training intervention are reported in Ryan *et al* (2005). In this article we report on the demographic and situational variations in levels of burnout amongst staff in six different European centres (see Box 1). It is important to note that the seventh centre participating in the study (Middlesex University) acted as co-ordinating centre but did not take part in the active research component of the study. We wanted to explore whether there were any particular differences in staff burnout levels in the different sites, and if so, to explore the reasons for this. We wanted to see whether there were any differences between community and inpatient teams both within and between the different sites. We were interested in demographic variability: whether there were any differences in burnout due to age, sex, years of experience in mental health or professional background. Finally, we wanted to establish whether prior exposure to relevant training in occupational stress had any protective effect on burnout levels.

## Methods

### Study design

Sources of stress and levels of burnout were studied among acute inpatient and community staff in six psychiatric centres in five European countries: two from Denmark and one each from Finland, Great Britain, Norway and Poland. The main hypotheses guiding the study were that (1) community staff have higher levels of burnout than acute ward staff, and (2) that there are systematically different sources of stress among the two groups, reflecting different organisational surroundings and responsibilities related to, for example, control over one's working conditions.

The overall design for the study was a simple longitudinal time series, with repeated measures at baseline, six and 12 months. A baseline was established by assessing the staff groups before they received training specifically designed and developed to reduce

### Box 1 Participating data collection centres in the OSCAR project

#### **Chancellor, Masters and Scholars of the University of Cambridge: Department of Psychiatry, UK**

The inpatient team serves patients with acute psychiatric illness or dual diagnoses. Many are detained under compulsory section. The community mental health teams are multidisciplinary and work with patients who have serious and enduring mental health problems.

#### **Institute of Psychiatry and Neurology, Warsaw, Poland**

The inpatient services consist of two therapeutic units, with an inner-city catchment area. The inpatient team addresses particularly difficult cases, 90% being referred after hospitalisation. In addition, inpatient psychotherapy, occupational therapy and network meetings are provided. The community team has a semi-open catchment area, and works primarily with patients with schizophrenia and long-term depression.

#### **Nordland Psychiatric Hospital, Bodø, Norway**

The acute ward has 10 beds and serves 10 municipalities. Most patients are detained under compulsory section. The multidisciplinary community-based rehabilitation team was established to reduce the re-admission rate of discharged patients; it works primarily with patients with psychosis and personality disorders. The multidisciplinary early-intervention team serves clients with first-time psychosis and their carers. Both community teams work on assertive outreach principles. In addition, there are 22 staff outposted in nine small municipalities who have the daily follow-up responsibility of patients in the local communities.

#### **Psychiatry Department, County of Århus, Århus, Denmark**

The inpatient ward (16 beds) is open with a secluded section; it is not exclusively dedicated to acute patients. The community teams are the primary focus of the psychiatric services and have an inner-city catchment area. Their target groups are patients with long-term psychosis, uni-/bipolar affective disorders, or borderline conditions.

#### **Social and Psychiatry Department of Storstrom County, Storstrom, Denmark**

There are two inpatient units, one working with forensic patients (80% of the 12 available beds), with diagnoses of psychosis, depression, bipolar and forensic problems. The other ward is low security. These patients range from those with depression to psychoses. Two community teams serve 11 municipalities. Their main aim is to prevent hospitalisation. Patients include those with long-term psychosis and bipolar disorders.

#### **University of Tampere, Tampere, Finland**

One acute ward serves mainly first-time admitted patients, as well as patients in crisis or with forensic problems. There are six small community teams. These are:

- two day centres
- a crisis-intervention and home-visiting team working mainly with hard-to-engage clients
- three outpatient services for discharged and GP-referred patients.

levels of occupational stress, and to increase the efficacy of risk assessment. Staff were followed up at six and 12 months post-intervention. This design was considered appropriate in that it would allow for the variability of a number of potentially unknown factors between sites. It would also overcome contamination issues that would otherwise be problematic in a randomised design.

The numbers of participants per site were calculated by taking into account the longitudinal design of the study. For the study to have a type 1 error rate of 5% (statistical significance) and type 2 error rate of 80% (power) and treating each of the six settings, as well as inpatient and community staff, as separate groups (i.e. 12 groups in total) to detect an effect size of 0.5 ('small' to 'medium' effect size), and assuming that the measures to be used have a retest correlation of 60%,

the sample size required per group was approximately 26. Taking into account a dropout rate of an estimated 35%, the final sample size was 35 subjects per group (i.e. 70 per setting, or 420 in total). Teams were randomly selected from each site, stratified by inpatient versus community teams, until the approximate required sample size was reached. In some cases this resulted in all locally available teams entering the study (see Table 1).

### Participants

The study comprised six different European psychiatric centres (in five countries), each with inpatient ward(s) and community team(s). The seventh centre (Middlesex University) co-ordinated the project and the research, but did not collect data or undertake an

**Table 1** Numbers of participants per centre

Site	Type of sample (inpatient)	Type of sample (community)	Inpatient ( <i>n</i> )	Community ( <i>n</i> )	Total ( <i>n</i> )
Aarhus, Denmark	Random sample of one team	Census of both teams	33	20	53
Bodo, Norway	Census of one team	Census of 3 teams	27	34	61
Cambridge, UK	Random sample of one team	Census of both teams	37	50	87
Storstrom, Denmark	Census of both teams	Census of both teams	34	13	47
Tampere, Finland	Random sample of two teams	Random sample of seven teams	42	62	104
Warsaw, Poland	Random sample of one team	Census of one team	32	30	62
Total			205	209	414

occupational stress intervention locally. A total of 414 mental health staff across the six settings participated in the study. For each centre both staff working in the inpatient units ( $n=205$ ) and community mental health teams ( $n=209$ ) were included (see Table 1). Nearly three-quarters of the participants were women (74.6%,  $n=309$ ) (men: 25.4%,  $n=105$ ). The mean age of the whole group ( $n=409$ ) was 41.96 years (SE 0.50), and was slightly lower in the inpatient staff group ( $n=202$ ; 40.06 years, SE 0.76, compared to community staff ( $n=207$ ; 43.81 years, SE 0.62).

### Ethical issues

All the participating centres successfully applied for and achieved ethical approval for the study, and the principle of informed consent was systematically applied. Meetings were held with the participating staff groups on all sites, where the rationale for the study was explained, the nature of the intervention clarified, and staff queries and questions answered in detail. Each staff member was also given a briefing letter which set out the aims and objectives of the study. All staff signed a consent form. All questionnaires were filled in anonymously, and only the site researchers had access to names and codes of study participants. Where staff left the study after the baseline period, exit interviews were carried out to explore their reasons for leaving.

### Instruments

The Maslach Burnout Inventory (MBI) (Maslach and Jackson, 1986) assesses three dimensions of the burnout syndrome: emotional exhaustion, depersonalisation and personal accomplishment. It has 22 items, scored on a frequency-of-occurrence basis, on a seven-point scale: from none to every day. Items examine an individual's feelings or attitudes towards themselves and their work. The subscale emotional exhaustion (EE) consists of nine items, depersonalisation (DP) of five and personal accomplishment (PA) of eight. Scale reliabilities (Cronbach's alpha) are 0.90 for EE, 0.79 for DP, and 0.71 for PA. Burnout scores in the upper one-third of the normal distribution are considered high, those in the middle one-third moderate and those in the bottom one-third low. Scores on EE and DP increase as burnout increases, while scores on PA decline (Maslach and Jackson, 1986). Reliability and validity are satisfactory, although the factor structure is a matter of some dispute (Kaliath *et al*, 1998). The MBI has been widely used in previous studies with mental health professionals (see, for example, Fagin *et al*, 1996; McElfrick *et al*, 2000; Onyett *et al*, 1997; Prosser *et al*, 1996).

### Data analysis

All statistical analyses were carried out using SPSS for Windows, release 12.0.

The analysed MBI subscales values distribution was verified using the Kolmogorow–Smirnow test. In order to make the distribution close to normal the transformation was carried out according to the models described in Box 2.

### Box 2 Models used

- MBI emotional exhaustion:  $2\sqrt{x+1}$
- MBI depersonalisation:  $3\sqrt{x+1}$
- MBI personal accomplishment:  $\frac{(x+1)}{1000}$

In order to compute a within-subjects effect, a GLM factor analysis transforms the within-subject variables into a new set of variables – one variable for each degree of freedom of the within-subject variable plus one additional variable for the average of the within-subject factor. The analysis of variance is performed on the transformed variables rather than on the original within-subject variables (see Box 3). In the analysis carried out for this paper, each factor was analysed twice. The GLM procedure was used to calculate the influence of the sociodemographic factors in relation to the levels of burnout in all three dimensions. In the first run, all factors were considered. In the second run, the factors site, team and others for which the value of  $F$  test in the first run was  $\geq 1$  were considered. The differences in the numbers of the participants in Tables 1–3 are due to missing data. The transformed means of MBI subscales were used in the calculations presented in the tables.

### Box 3 The model used in GLM procedure

$$Y_{ijklmnop} = \mu + S_i + T_j + (ST)_{ij} + G_k + A_l + O_m + W_n + T_o + Y_p + e_{ijklmnop}$$

#### $Y_{ijklmnop}$ variables: subscales MBI etc:

$\mu$	general mean
$S_i$	site influence, $i = 1, 2, 3, 4, 5, 6$
$T_j$	team influence, $j = 1, 2$
$(ST)_{ij}$	site and team interaction
$G_k$	gender influence, $k = 1, 2$
$A_l$	age influence, $l = 1, 2, 3$
$O_m$	occupational status influence, $m = 1, 2, 3$
$W_n$	working hours influence, $n = 1, 2$
$T_o$	training influence, $o = 1, 2$
$Y_p$	years in mental health influence, $p = 1, 2, 3$
$e_{ijklmnop}$	random error

## Results

### The influence of site and team on emotional exhaustion, depersonalisation and personal accomplishment

There were no statistically significant differences between sites and teams regarding emotional exhaustion (see Table 2). The highest total score for EE was in Cambridge (4.13, SE 0.14) and the lowest in Storstrom (3.60, SE 0.20). For four of the sites, Tampere and Storstrom excluded, scores for community teams were higher than those for inpatient staff. The overall EE score for the Warsaw community teams was higher than for any other team on any other site (see Table 2).

Cambridge had the highest score for depersonalisation in respect to both inpatient and community teams. The community teams in Warsaw achieved similar scores (1.77 respectively, SE 0.07 and 0.09 respectively). In addition, there was a statistically significant difference between the Cambridge total score (1.80, SE 0.05) and that of Storstrom (1.50, SE 0.08), which scored lowest of all the sites (see Table 2).

There were statistically significant site differences with respect to personal accomplishment (see Table 2). Storstrom (76.36, SE 4.60), scored significantly lower on this factor than any other site with regard to both inpatient and community team scores. Both Warsaw teams scored significantly higher than any other site (39.92, SE 3.63). However, it should be noted that community team numbers in Storstrom were low ( $n = 13$ ). It is worth noting that the scores of the Aarhus teams were also relatively low for PA (58.98, SE 3.91), the community teams for this site scoring somewhat higher (50.18, SE 6.06) than the inpatient teams (67.79, SE 4.76) (see Table 2).

### The influence of sociodemographic variables (sex, age, professional background, hours worked per week, relevant training undertaking prior to OSCAR, years of experience in mental health) on emotional exhaustion, depersonalisation and personal accomplishment

There were statistically significant differences regarding emotional exhaustion with respect to professional background and relevant prior training. The highest levels were observed among professionally qualified staff, who scored significantly higher than occupational groups such as administrative staff.

**Table 2** The influence of site and team on the three dimensions of burnout

Emotional exhaustion				Team	$F = 1.26$	$P = 0.26$	Site	$F = 1.41$	$P = 0.22$
Site	Inpatient			Community			Total		
	$n$	LSM	SE	$n$	LSM	SE	$n$	LSM	SE
Aarhus	33	3.82	0.22	20	4.23	0.27	53	4.03	0.18
Bodo	27	3.66	0.24	34	3.83	0.22	61	3.74	0.17
Cambridge	37	4.10	0.20	50	4.16	0.18	87	4.13	0.14
Storstrom	34	3.66	0.22	13	3.54	0.34	47	3.60	0.20
Tampere	40	4.11	0.20	59	3.89	0.17	99	4.00	0.14
Warsaw	32	3.66	0.22	30	4.26	0.23	62	3.96	0.17
Total	203	3.84	0.10	206	3.97	0.10	409	3.90	0.08
Depersonalisation				Team	$F = 5.25$	$P = 0.02$	Site	$F = 2.83$	$P = 0.02$
Site	Inpatient			Community			Total		
	$n$	LSM	SE	$n$	LSM	SE	$n$	LSM	SE
Aarhus	33	1.59	0.08	20	1.60	0.10	53	1.60 <sup>b,c</sup>	0.07
Bodo	26	1.83	0.09	34	1.54	0.08	60	1.69 <sup>a,b,c</sup>	0.06
Cambridge	37	1.84	0.07	50	1.77	0.07	87	1.80 <sup>a</sup>	0.05
Storstrom	33	1.65	0.08	13	1.35	0.12	46	1.50 <sup>C</sup>	0.08
Tampere	41	1.80	0.07	61	1.67	0.06	102	1.73 <sup>a,b</sup>	0.05
Warsaw	32	1.68	0.08	30	1.77	0.09	62	1.73 <sup>a,b</sup>	0.06
Total	202	1.73 <sup>a</sup>	0.04	208	1.62 <sup>b</sup>	0.04	410	1.67	0.03
Personal accomplishment				Team	$F = 0.07$	$P = 0.79$	Site	$F = 8.36$	$P = 0.00$
Site	Inpatient			Community			Total		
	$n$	LSM	SE	$n$	LSM	SE	$n$	LSM	SE
Aarhus	33	67.79	4.76	20	50.18	6.06	53	58.98 <sup>b</sup>	3.91
Bodo	26	55.41	5.32	34	57.82	4.83	60	56.62 <sup>b</sup>	3.69
Cambridge	37	56.96	4.41	50	54.68	4.01	87	55.82 <sup>b</sup>	2.99
Storstrom	33	68.86	5.03	13	83.86	7.48	46	76.36 <sup>a</sup>	4.60
Tampere	40	52.37	4.39	61	58.43	3.61	101	55.40 <sup>b</sup>	2.92
Warsaw	32	44.12	4.84	30	35.72	5.16	62	39.92 <sup>c</sup>	3.63
Total	201	57.59	2.08	208	56.78	2.41	409	57.18	1.69

<sup>a,b,c</sup> Means with the same letters are not statistically significantly different.

**Table 3** The influence of sociodemographic variables (sex, age, professional background, hours worked per week, relevant training undertaken prior to OSCAR, years of experience in mental health) on the three dimensions of burnout

Effect	Emotional exhaustion			Depersonalisation			Personal accomplishment		
	<i>n</i>	LSM	SE	<i>n</i>	LSM	SE	<i>n</i>	LSM	SE
Sex		<i>F</i> = 0.11	<i>P</i> = 0.74		<i>F</i> = 8.20	<i>P</i> = 0.00		<i>F</i> = 2.72	<i>P</i> = 0.10
Male	101	3.92	0.14	105	1.75 <sup>a</sup>	0.05	105	54.61	2.79
Female	287	3.87	0.10	305	1.60 <sup>b</sup>	0.03	304	59.76	1.67
Total	388	3.90	0.09	410	1.67	0.03	409	57.18	1.69
Age (years)		<i>F</i> = 0.82	<i>P</i> = 0.43		<i>F</i> = 1.03	<i>P</i> = 0.36		<i>F</i> = 0.34	<i>P</i> = 0.71
≤30	65	3.95	0.18	65	1.68	0.07	65	57.62	4.15
>30 and ≤50	244	3.98	0.10	244	1.68	0.04	244	58.77	2.24
>50	79	3.76	0.15	79	1.59	0.06	79	55.79	3.44
Total	388	3.90	0.09	388	1.65	0.03	388	57.39	2.07
Professional background		<i>F</i> = 4.14	<i>P</i> = 0.02		<i>F</i> = 3.02	<i>P</i> = 0.05		<i>F</i> = 4.45	<i>P</i> = 0.012
Academic	139	4.18 <sup>a</sup>	0.12	141	1.76 <sup>a</sup>	0.04	141	63.02 <sup>a</sup>	2.58
Nurse	185	3.92 <sup>ab</sup>	0.10	186	1.64 <sup>b</sup>	0.04	186	58.17 <sup>a</sup>	2.26
Other	85	3.63 <sup>b</sup>	0.15	83	1.62 <sup>a,b</sup>	0.06	82	50.36 <sup>b</sup>	3.33
Total	409	3.91	0.08	410	1.67	0.03	409	57.18	1.69
Hours worked per week		<i>F</i> = 1.21	<i>P</i> = 0.27		<i>F</i> = 0.24	<i>P</i> = 0.62		<i>F</i> = 0.04	<i>P</i> = 0.84
≤37.5	157	3.81	0.13	157	1.63	0.05	157	57.05	2.84
>37.5	231	3.98	0.11	231	1.66	0.04	231	57.73	2.54
Total	388	3.90	0.09	388	1.65	0.03	388	57.39	2.07
Relevant training undertaken prior to OSCAR		<i>F</i> = 4.92	<i>P</i> = 0.03		<i>F</i> = 0.53	<i>P</i> = 0.47		<i>F</i> = 0.56	<i>P</i> = 0.46
Yes	98	3.75 <sup>a</sup>	0.13	96	1.63	0.05	96	58.63	3.10
No	311	4.07 <sup>b</sup>	0.07	292	1.67	0.04	292	56.16	2.10
Total	409	3.91	0.08	388	1.65	0.03	388	57.39	2.07
Years of experience in mental health		<i>F</i> = 0.56	<i>P</i> = 0.57		<i>F</i> = 0.94	<i>P</i> = 0.39		<i>F</i> = 0.76	<i>P</i> = 0.47
≤5	124	3.81	0.13	124	1.64	0.05	124	59.01	3.00
>5 and ≤15	126	3.89	0.13	126	1.61	0.05	126	58.49	3.00
>15	138	4.00	0.14	138	1.69	0.05	138	54.67	3.05
Total	388	3.90	0.09	388	1.65	0.03	388	57.39	2.07

<sup>a,b</sup> Means with the same letters are not statistically significantly different.

Staff ( $n = 98$ ) who had received previous training about occupational stress prior to this study experienced significantly less emotional exhaustion compared to those with no prior relevant training ( $n = 311$ ). This second group, numerically over three-quarters (76%) of the total staff group in the study, experienced the highest level of emotional exhaustion compared to all the other factors to which it was compared (see Table 3).

The highest values of depersonalisation were observed among professionally qualified staff, who scored significantly higher than other occupational groups. Gender was statistically significant ( $P = 0.00$ ), with men having significantly higher levels of depersonalisation than women (see Table 3). The highest values of personal accomplishment were observed among other occupational groups who scored significantly higher than professionally qualified staff (see Table 3).

## Discussion

This study presents the demographic and situational variations in levels of occupational burnout among community and inpatient staff located in Århus and Storstrom in Denmark, Cambridge in the UK, Bodø in Norway, Tampere in Finland and Warsaw in Poland. We argue that the EE scores for the Warsaw community teams were high (EE 4.26, SE 0.23; DP 1.77, SE 0.09) because of the financial resource conditions the community teams were operating under. The OSCAR study was conducted during a period of reform of the healthcare finance systems in Poland, which, since April 2003, resulted in a massive loss of funding allocated to Polish mental health services. We know, from the qualitative interviews data, that this situation resulted in a lot of tension, disappointment and frustration, a sense of low control, and apprehension about possible job losses. Polish salaries in the mental health system are extremely low, while the demands are high. One staff member summed it up by saying: 'Even if we try to do something, and establish a plan, no one will notice it positively, and the next change will ruin everything'. It is not surprising, therefore, that the Polish teams felt helpless, without satisfactory support. This is evidenced by the Polish community teams reporting 40 hours work each week plus 20.5 paid overtime and five hours unpaid work per week, and 2.5 hours travelling time during work per day.

It is somewhat surprising, therefore, that the Polish teams also scored highest in personal accomplishment. It could perhaps be partially explained by there being, in Polish Catholic culture, a strong vocational element which commits the individual to an ethic of service *no matter what*. It could also be explained by the fact that for all the difficulties of the Polish economy,

working in mental health services represented a secure, permanent guarantee of employment, something to be prized highly in a context of high unemployment.

As to why the Storstrom teams scored low in personal accomplishment, it may be relevant that the inpatient staff worked in a forensic unit, dealing with a particularly difficult group of patients and that this had an adverse effect on their scores. It could also be that the psychiatric profession in Denmark was not so highly valued as a secure source of employment as it was in Poland. However, the number of participants in Storstrom was relatively low ( $n = 47$ ) compared to other sites, and so interpretations of site data should be treated with caution.

The Cambridge teams scored very highly with respect to both EE (total 4.13, SE 0.14) and depersonalisation (total 1.80, SE 0.05). At the time of the study they were going through a period of massive organisational change and restructuring, which may have added to their workload and led to a sense of loss of control through lack of consultation.

In overall terms it is noteworthy that professionally qualified staff scored significantly higher in EE (4.18, SE 0.12) and DP (1.76, SE 0.04), while also scoring lowest in terms of PA (63.02, SE 2.58). It is possible that this was because in most of the services studied, they occupied higher managerial positions, with wider responsibilities and greater workloads. Another notable finding was the apparently prophylactic effect on burnout of previous training about occupational stress. We know from this study that those previously exposed to relevant training scored significantly lower with respect to EE than those with no prior exposure. This is both reassuring and somewhat puzzling. It is reassuring that prior training might have had a protective effect, but suggests that the more recent OSCAR training had no positive impact at all (Ryan *et al*, 2005).

Younger staff members ( $\leq 30$  years and  $>30$  and  $\leq 50$  years) scored higher on DP than did older staff members ( $>50$  years), and this is explicable in terms of relatively inexperienced staff being less prepared to manage environmental stressors (see, for example, Cushway *et al*, 1996).

Finally, our study indicated that men in the study scored significantly higher on DP than did women. This may be explicable in terms of men being exposed to higher levels of violence than women (see for example Thomsen *et al*, 1999). We are not, however, as yet able to confirm this from our own data.

## Study limitations and strengths

This study is unusual in two respects. First, it offers a comparative baseline for the analysis of stress and burnout across six European mental health services.

Secondly, it attempts to evaluate the results of a team-based intervention designed to reduce stress and burnout, the results of which are reported in Ryan (2005).

The main methodological limitation concerning the present study was the small sample sizes at some of the sites; for example, the total size of the community team sample on the Storstrom site was only 13. Consequently, the values of the scales were not distributed normally. Accordingly, the scores were transformed in order to make the distribution adhere more closely to normal distribution.

## Conclusion

This study was the first to analyse across six European sites the impact of demographic and situational factors in terms of contributing to variations in levels of burnout in six European mental health services. We found that high levels of emotional exhaustion (as found in Warsaw, for example) did not necessarily correlate with low levels of personal accomplishment. A consistent finding in the data was that prior exposure to relevant occupational stress training did have a prophylactic effect in reducing current levels of burnout dimensions. We also found consistently across settings that men scored higher on the depersonalisation subscale of the MBI than did women. This study would also suggest that professionally qualified staff also scored higher in all three MBI factors of personal accomplishment, emotional exhaustion and depersonalisation than did unqualified staff or administrative staff. If nothing else, this study is a confirmation of the complex, multifactorial nature of occupational stress, and shows that cross-cultural collaboration as demonstrated in the OSCAR project can make a valuable contribution to the clarification of these complex issues.

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#### CONFLICTS OF INTEREST

None.

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