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An Investigation into the Effects of Organisational Change on Occupational Stress in Further Education Lecturers

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ABSTRACT *The aim of this study is to investigate the stress experienced by full-time maingrade lecturers as a result of changes in college organisation and factors that relate to stress. A questionnaire was constructed to identify possible sources of stress at work and the amount of stress experienced. Two psychometric measures were included—the General Health Questionnaire and the Maslach Burnout Inventory. The former looked at the physiological and psychological effects of stress and the latter, the emotive, cognitive and behavioural effects, together referred to as ‘burnout’. The study sought to investigate stress responses between lecturers employed in colleges that have undergone organisational change compared to those that have not. Two hundred questionnaires and psychometric measures were distributed, by opportunity, to 100 lecturers employed in FE colleges in the north of England and 100 employed in colleges in Northern Ireland. Colleges in the former region had undergone changes in college organisation as a result of incorporation. Colleges in the latter had not. Incorporation referred to the process whereby colleges became independent of local government control. This led to a series of changes, some of which affected lecturers’ terms and conditions. Overall, the indices of reported stress were comparable or markedly greater than earlier research findings, and the trend was for lecturers who had experienced organisational change to report higher measures of stress. GHQ measures showed a significant difference between samples, with the majority of the English sample (69.49%, compared to 40.91%) categorised as ‘at risk’ of developing symptoms associated with a transient stress-related disorder, and whilst measures of ‘burnout’ were more pronounced in the English sample there were no significant differences between samples. In relation to a number of factors, the experience of stress and burnout was more pronounced in the Northern Ireland sample and explanations were offered, such as the influence of cultural variables and the increasing presence of stress-related features in these colleges as they move to incorporation.*

Introduction

Teacher stress depends on an appraisal of the situation and its related stresses and on the coping mechanisms one is able to draw on. In April 1994 all colleges in England and Wales became independent of County Councils and underwent incor-

poration; this involved a number of changes to college structures, management structures and changes to the terms of service for lecturing staff. At the time of writing, colleges in Northern Ireland were to begin the process of incorporation. It is the effect of some of these changes on stress levels, particularly the changes to the terms of service for lecturing staff, such as changes in teaching load, student numbers and management styles, which is the focus of this study.

Elliot and Hall (1994) propose that incorporation is bringing several changes that could qualify as sources of stress. To illustrate, the reality for new incorporated FE colleges is that they no longer have the financial assurance of the local authority safety net but as:

... private limited companies [they are] liable for their debts, and subject to the same market forces and legal obligations to cease to trade, once insolvent, as are all other companies. (Elliot & Hall, 1994, p. 4)

The Government, through the Further Education Funding Council (FEFC), dictates that resourcing only follows those colleges that produce results that qualify within the National Council for Vocational Qualifications (NCVQ) framework. This mechanism allows the Government to exert a tight rein on the nature and type of provision within FE and, moreover, to exert changes, sector wide, in relation to the terms and conditions of staff, as was the case in the former polytechnic sector where the PCFC held back 1% of funding until new contracts had been signed by academic staff.

If, as tends to be the case, the trends in FE reflect those already set in HE, it is to be expected that the FEFC will drive down the unit resourcing per full-time student equivalent and this will inevitably lead to greater control on staffing costs. The economies of scale that foreshadow the new funding arrangements will marginalise staff whose activities do not directly benefit the business orientation of the college and Elliot and Hall forewarn that, far from the new business ethos maximising and enhancing 'output' it may well have a detrimental effect on educational provision and on staff.

Earley (1994) surveyed 1000 FE lecturers in England and identified a marked increase in workload and experience of stress in FE lecturers employed in colleges following incorporation. The aim of this study is to investigate the stress experienced by lecturers employed in incorporated colleges, in England, compared to those employed in colleges that have not yet incorporated, in Northern Ireland.

Three hypotheses were investigated. The first measures stress in terms of its perceived causes as determined from questionnaire responses. An alternative to measuring stress by identifying perceived causes is to consider it in terms of the physiological, behavioural and psychological effects on the individual. The remaining hypotheses propose that there will be differences in such effects between lecturers employed in colleges that have incorporated compared to those in colleges that have not. These effects or symptoms of stress are measured through the General Health Questionnaire (GHQ) and the Maslach Burnout Inventory (MBI).

Method

Design

An Independent Samples Design was used. Two groups of subjects were used. The first being a sample of full-time FE lecturers employed in Further and Higher Education colleges in the north of England, in colleges that have incorporated, and the second, a sample drawn from Northern Ireland, employed in colleges that had not yet incorporated.

Subjects

Two hundred tests and questionnaires were distributed, half to each geographical region. There were 47 returned within Northern Ireland and 63 from England. Of the respondents 50 were female and 60 male. By sample the sex composition was 55.3% female ($n = 26$) and 44.7% male ($n = 21$) in the Northern Ireland sample and 38.1% female ($n = 24$) and 61.9% male ($n = 39$) in the English sample. There was a good cross-section of ages with 83.7% falling within the 31–40 and 41–50 years cohorts.

The Instruments

A questionnaire was formed which sought to identify the extent to which stress as experienced, the factors contributing to stress and the effects of stress. The MBI was employed to estimate the degree of strain and burnout. Burnout is the manifestation of chronic stress. Maslach defines it as:

... emotional exhaustion; depersonalization or becoming callous towards and withdrawn from clients or colleagues and a sense of a lack of personal accomplishment at work. (cited in Evans & Fischer, 1993, p. 29)

The 12-item GHQ was employed because it focuses not on lifelong traits but on breaks in normal behaviour, on the signs of an inability to continue to carry on one's normal 'healthy' functions and the appearance of new distressing phenomena.

Results, Analyses and Discussion

In relation to the percentage of stress attributed to work-related factors, 82.5% ($n = 52$) of the English sample attributed 70% or more of the stress experienced to work compared to 57.5% ($n = 27$) for the Northern Ireland sample and this difference was significant ($t = 3.1$, $p < 0.002$).

In relation to the number of hours taught per week, and excluding the responses from part-time staff, 20.6 hours was the average for the Northern Ireland sample compared to 22.09 hours for the English sample. 57.5% ($n = 27$) of the Northern Ireland sample and 73% ($n = 46$) of the English sample taught 21 or more hours a week.

The lecturers in the English sample are teaching almost 2 hours more per week

compared to the lecturers' responses in Earley's study. Of the Northern Ireland sample, 36.2% ($n = 17$) received overtime, compared to 15.9% of the English sample. It appears that more of the Northern Ireland sample working in excess of 21 hours are doing so as overtime, compared to the English sample, where the majority teaching in excess of 21 hours are doing so as part of their contractual arrangement.

The English sample worked, on average, almost 4 hours longer per week compared to the Northern Ireland sample (41.4 compared to 36.4). Of the Northern Ireland sample, 59.4% ($n = 28$) compared to 79.3% ($n = 51$) of the English sample worked 40 or more hours a week. This is set against a background where almost twice as many of the respondents in Northern Ireland received remission compared to the lecturers sampled in England (72.3%, $n = 34$, compared to 38.1%, $n = 24$) In short, the English lecturers are working longer and receiving less remission.

In terms of factors considered stressful. General administration and administration for new courses were markedly higher for the English sample.

The largest difference between the two groups of lecturers, in factors considered 'stressful' or 'very stressful', was in relation to the stress accorded to institutional management style, with 84.1% of the English sample rating this as a stressor compared to 53.2% of the Northern Ireland group and this was clearly significant ($t = 4.12$, $p < 0.0001$). There were differences in the stress attributed to insufficient line manager support (57.1% compared to 34%), with the English sample finding this factor significantly more stressful ($t = 2.68$, $p < 0.008$).

This trend was reversed in relation to the stress attributed to the demands of TDLB standards, with this factor being considered more stressful by the Northern Ireland group ($t = 2.63$, $p < 0.01$). TDLB refer to Training and Development Lead Bodies and these Bodies (e.g. BTEC, RSA and City and Guilds) require lecturers involved in delivering GNVQs and NVQs to obtain qualifications to ensure that their students meet the appropriate standards of achievement. Undertaking these qualifications takes up considerable time and in almost all cases has to be undertaken without remission. The introduction of TDLB standards occurred approximately 2 years earlier in England than Northern Ireland and it may be that more staff were having to undertake the necessary qualification compared to their English counterparts which may account for the significant differences observed here.

Two other unexpected findings in the Northern Ireland sample were that 55.3% found the demands from changes in terms of service, and 68.1% found repercussions of reduced holiday entitlement as 'stressful' or 'very stressful'. Indeed, there was a significant difference in the stress attributed to reduced holiday entitlement ($t = 3.10$, $p < 0.002$), with a greater stress response from the Northern Ireland sample. These findings are surprising because neither of these changes are officially due to come into effect until *after* incorporation, which has yet to take place in Northern Ireland. There are a number of reasons that might account for these and some of the other responses.

The first is that the changes might be a reality for some lecturers in some colleges as Principals and college managers move to prepare their college for the changes involved in incorporation, with increasing pressure being put on staff to

show their commitment. The second reason is that the responses may relate to demand characteristics—respondents giving answers in line with how they anticipate the overall results will be, rather than responses that are true of their own experience.

The final, and possibly most likely reason is that the responses relate to the stress these changes in reduced holiday and changes in terms of service are *perceived* by the individual to have when they do come into effect, i.e. whilst they are not a reality yet, the likelihood that they will become so is 'stressful' or 'very stressful'.

The majority in both samples had experienced an increase in workload over the last 2 academic years, with this being marginally higher for the English group (93.7%, $n = 59$, compared to 85.1%, $n = 40$) who were also more stressed 'most of the time' (42.9%, $n = 31$, compared to 31.9%, $n = 15$). For both samples the vast majority agreed that the stress experienced 'adversely affected performance'.

Of the English sample, 31.7% ($n = 20$) compared to 21.3% ($n = 10$) of the Northern Ireland sample were absent due to stress at work. Of the English sample, 74.6% ($n = 47$) against 59.6% ($n = 28$) of the Northern Ireland sample, seriously considered leaving the teaching profession. This association approaches statistical significance (Chi-square = 2.8, $p < 0.09$) and is in line with hypothesis predictions.

On almost all the measures so far referred to, the trend is for the lecturers in colleges that have incorporated (the English sample) to experience greater workloads and more frequently to experience stress. This is reflected in the different comments from respondents and in the frequency of comments between samples—with 79.4% ($n = 50$) of the English sample adding comments compared to 59.5% ($n = 28$) for the Northern Ireland sample. Below is an outline of a small sample of the comments relating to stress at work. It is worth bearing in mind that some of these comments may represent extreme views and some the views of people who feel they are in extreme situations.

Responses from the English Sample

Management.

Confrontation with senior management.

Bullying management tactics.

The main stresses at work are related to relationships with management and the individuals who they are prepared to support, regardless of whether it is just to do so.

The main problem is a sense of alienation from management.

Restructuring at this period of change has led to some taking advantage of the situation to leapfrog into promoted, highly paid management posts—

but they have no respect from staff and are not competent—this places more stress on staff.

Time and resources.

Pressure to develop new courses; being kept understaffed.

I'm constantly tired. My personal life takes second place to my job. The proliferation of open days—sometimes on Saturdays, as well as a huge increase in enrolment duty and interviews of prospective students are very time-consuming. The FEFC inspection last month increased my stress by 200%.

A lack of recognition.

A general lack of respect; admin. telling us what we should be doing.

A lack of appreciation from line management.

New contract.

I still have a feeling of outrage at being forced to sign the new contract.

The new 'must work long, long hours to appear committed' attitude, is very destructive.

People with family commitments are regarded more and more as pariahs.

Since incorporation and the Governors'/Principal's refusal to negotiate on contracts, the college has ceased to be working for a common aim. The refusal to award pay rises has resulted in definite financial stresses and at work I actually find it stressful at times to say 'no—no pay rise no flexibility'.

We are in the process of a change in terms of service, through ACAS. This is very stressful.

More courses and more content to teach but less time to prepare; we are expected to improve exam results but at the same time reduce drop-out rate.

Responses from the Northern Ireland Sample

Management.

The management style is unprofessional, secretive; management have a complete inability to motivate staff; they are inept.

A lack of conscious, overt praise; petty tyranny of untrained and stressed managers.

Time and resources.

Increases in administration; too many course changes; insecurity of employment; a lack of confidence in management; cutting the number of hours to deliver courses etc.

The quantity of course changes is excessive. As is the amount of student contact i.e. teaching time. Over half of my teaching is Higher level and preparation is impossible.

Too much rapid change with insufficient support in terms of resources.

Lack of recognition.

Seeing people promoted within our department when their activities do not appear to justify their promotion. I am not as co-operative as I used to be. I feel undervalued in my own Department.

Failure to return loyalty given for 12 years from new management.

A lack of promotion or any formal recognition of my qualifications, experience and the skills I bring to lecturing.

New contract.

At the minute the prospect of new contracts is the most stressful part of the job.

Threats of redundancy.

These comments reflect the considerable amount of stress being experienced by both samples. The greater the number of comments from the English sample and the more frequent the comments that relate to the new contract, indicate that they are experiencing greater stress and that the major stressors reported here did not relate to student behaviour (only 3 out of the 78 comments referred to student behaviour) but to organisational and situational factors. This is supported by Hart's (1994) study of school teacher stress in Australia where he found the major stress did not relate to student behaviour but to organisational and situational characteristics, such as an authoritarian line manager, increased administration demands and time pressures.

Analyses of GHQ and MBI Responses

The GHQ indicates the physiological and psychological effects of stress and the MBI the emotional, cognitive and behavioural effects. Table I compares the percentages who scored in each MBI category by sample, and Table II compares the responses between samples and against Maslach and Jackson's (1986) normative data.

The most notable difference in comparing the percentages between samples is that the English sample were more frequently categorised in the high category for the

TABLE I. Percentage scores by category on the MBI within each sample

Category Value	Northern Ireland sample		England sample	
	%	n	%	n
<i>Emotional Exhaustion (EE)</i>				
High	47.7	21	64.4	38
Medium	40.9	18	22.0	13
Low	11.4	5	13.6	8
<i>Depersonalisation (DP)</i>				
High	20.5	9	37.3	22
Medium	34.1	15	23.7	14
Low	45.4	20	39.0	23
<i>Personal Achievement (PA)</i>				
High	50.0	22	71.2	42
Medium	22.7	10	16.9	10
Low	27.3	12	11.9	7

For the Northern Ireland sample $n=44$ and for the English sample $n=59$. Seven respondents did not complete the MBI.

first two subscales and scored lower on the personal achievement subscale in Table I. There was an average of 18.23% greater response rate by the English sample in the high categories compared to the Northern Ireland sample. This is reflected in the higher means for the English compared to the Northern Ireland sample on measures of emotional exhaustion and depersonalisation and a lower mean on personal achievement.

For both samples in Table II the emotional exhaustion mean is markedly higher compared to teachers and post-secondary educators and higher compared to the overall sample mean from Maslach and Jackson's (1986) study of burnout in a range of occupational groups. These findings support earlier research carried out by the Association of University Teachers (1995) who, based on an analysis of 1000 lecturers' work diaries, compiled over a 2-week period, concluded that full-time staff were working longer hours and were experiencing correspondingly more stress.

In terms of the GHQ responses the mean response of 3.93 from the Northern Ireland sample fell below the cut-off point of 4. This compares with the English sample mean of 5.67. The Northern Ireland result is similar to the mean of 3.95 found by Cox *et al.* (1987) when applying the GHQ to a range of occupational groups. Of the Northern Ireland sample, 40% were 'at risk' (i.e. scored above 4) compared to 69.49% for the English sample, and both were markedly higher than the 24% of those 'at risk' in a comparative sample of professional groups studied by Cox *et al.* (1987).

The greater reporting of stress in the English sample indicates that lecturers in colleges that have incorporated are more frequently experiencing stress and stress-related symptoms, and is supported by the finding that the difference in GHQ scores, between samples, was significant based on an analysis of variance ($F=4.97$, $p<0.02$).

TABLE II. The range of burnout responses by category for sample norms and comparable occupational groups

Occupational groups	EE	DP	PA
Overall sample ($n = 11.067$)			
Mean	20.99	8.73	34.58
Teachers ($n = 4163$)			
Mean	21.25	11.00	33.54
Post-secondary Educators ($n = 635$)			
Mean	18.57	5.57	39.17
FE lecturers Northern Ireland ($n = 44$)			
Mean	28.14	8.52	31.59
FE lecturers England ($n = 59$)			
Mean	30.51	10.47	28.49

Occupations represented in the normative samples include: 4163 teachers (elementary and secondary, grades—kindergarten to grade 12); 635 post-secondary educators (college, professional schools); 1538 social service workers (social workers, child protective service workers 0; 1104 medical workers (physicians, nurses); 730 mental health workers (psychologists, psychotherapists, counsellors, mental hospital staff, psychiatrists); and 2897 others (legal aid employees, lawyers, police officers, probation officers, ministers, librarians, and agency administrators).

Source: Maslach & Jackson, 1986).

A number of analyses were carried out between the two samples correlating GHQ and MBI measures with a number of potential sources of stress (a list of the different correlates for both samples can be found in Appendix 1).

Some of the notable correlations include the link between student assessments and teaching loads and feelings of depersonalisation with the demands of teaching existing courses in the English sample. In the Northern Ireland sample, the demands from new courses were significantly related to emotional exhaustion and GHQ scores, and GHQ scores to the demands of delivering GNVQ/NVQs for this group.

It may be that GNVQ/NVQs are the new courses and, as stated earlier, the pressures involved in setting up and delivering such programmes may be a more recent experience for lecturers in Northern Ireland.

For the English sample there were strong correlations between the demands of research and GHQ and emotional exhaustion responses, indicating that increased pressures on lecturers in corporate colleges to develop courses is related to greater stress.

For both samples there was a significant relationship between insufficient administrative support and emotional exhaustion. Institutional management styles correlated with emotional exhaustion and GHQ responses for both. Interestingly, there were two significant *positive* correlations on personal achievement in the English

sample. The first was in relation to teaching load, indicating that whilst lecturers found teaching commitments stressful they also found them a challenge and a possible source of eustress or stress that enhances performance and esteem, as a result of interaction with students and the increased opportunity for student feedback.

The most surprising finding was the stress-ratings accorded to institutional management styles *positively* related with levels of personal achievement. This may indicate that management styles, despite often appearing harsh and unsupportive, are actually contributing to levels of personal achievement; or it may be that other factors are contributing both to levels of personal achievement and responses to management styles; it may even be that it is *in reaction* to stressful institutional management styles that individuals pursue areas of their work which are evaluated as contributing to personal achievement.

Kyriacou and Sutcliffe (1979) surveyed 218 secondary school teachers and identified a significant association between self-reported teacher stress and intentions to leave the profession ($r = 0.18, p < 0.01$). This is supported by the results in this study with respondents more likely to consider leaving the profession if they had been categorised as 'at risk' on GHQ measures and who scored high on burnout. The average GHQ score of those who seriously considered leaving was 5.89, compared to 2.67 for those who did not. Between samples, it was 6.32 for the English sample and 5.14 for the Northern Ireland sample.

Similarly, in terms of emotional exhaustion, those who considered leaving scored on average 10 points higher than those who did not.

It is clear that a number of the findings indicate that lecturers within Northern Ireland are experiencing stress in line with their English counterparts, though it was anticipated that the experience of stress and burnout would be more dominant in the lecturers working in corporate colleges. The fact that it is present in the Northern Ireland lecturers suggests that respondents are experiencing considerable stress at work and experiencing stress that is perhaps not work-related but may be related to the wider political situation in Northern Ireland. This is, to some extent, supported by the higher stress ratings given to non-work-related factors; this averaged at 35.0% in the Northern Ireland sample and 24.1% in the English sample. In addition, the termination of the cease-fire by one of the major terrorist groups occurred at the time of the survey and may be one such factor outside work. The cultural differences between the different traditions and the stresses associated with this may be another.

Conclusion

In interpreting these results it is important to bear in mind the common problems involved in the methodology used, notably those that relate to self-reporting and non-response. A further problem in interpreting reported stress levels is that:

...ego-defensively processes lead to the under-reporting of sources of stress which imply personal failure or deficiencies. (Caspari, 1976)

As a result, the reported levels may in fact be a deflated measure of actual stress levels.

There were a number of common factors both groups found stressful, and some distinct to the two groups. For example, the English sample found writing course submissions and institutional and line manager styles significantly more stressful, whilst the Northern Ireland sample found the demands of TDLB stressful.

In terms of the amount by which workload had increased and the extent to which respondents felt stressed at work, both samples experienced marked increases over the last 2 academic years, and this trend was more pronounced in the English sample.

There was a significant difference in GHQ scores between samples ($F_{4,97}$, $p < 0.02$), with the English sample more 'at risk' of developing stress-related symptoms, and the English sample scored higher on measures of burnout.

Recommendations

1. A closer analysis of the colleges under investigation would allow for more accurate distinctions to be drawn between those colleges that have incorporated compared to those that have not. This would reduce the problem experienced here of colleges which have not yet incorporated but which contain a number of stress-related factors associated with incorporation. A useful comparison could be made between FE colleges and sixth form colleges. Whilst teachers in the latter have undergone changes in terms of service, these have not drastically affected teaching commitments, class sizes or holiday entitlement to the extent experienced by lecturers in FE.

2. It would be interesting to investigate the effectiveness of different coping responses within the profession. For example, it was suggested that the greater experience of stress in Northern Ireland respondents may be attributable to the experience of stress outside work, namely increased political violence. Were this accurate we would expect the Northern Ireland sample to rate non-work factors as more stressful compared to their English counterparts, but, whilst there is a difference, it is not significant, suggesting either that this explanation is not accurate or that it is accurate but respondents are employing some kind of coping strategy which helps them not to perceive this wider stress.

This area has been investigated in Northern Ireland by Cairns & Wilson (1984) and Curran (1988), who found that those exposed to prolonged stress frequently employ denial as a coping strategy. The more frequent the exposure to stress the lower tends to be the reported perception of stress. It would be interesting to see if such a strategy is employed in relation to exposure to prolonged stress within work.

3. Finally, it would be interesting to explore the unexpected correlations found in this study: between teaching load and measures of personal achievement and between the stress responses towards management styles and personal achievement. It may well be that teachers and lecturers channel more of their energies into their teaching when the work demands outside teaching increase, and this together with

the increased opportunity for feedback from students, as teaching loads increase, may act as one type of coping strategy.

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Appendix 1.*Correlations Between Factors Identified as Stressful with GHQ and MBI Scores for the English Sample*

Factor	GHQ ($p < 0.05$)	GHQ ($p < 0.01$)	EE ($p < 0.05$)	EE ($p < 0.01$)	DP ($p < 0.05$)	DP ($p < 0.01$)	PA ($p < 0.05$)	PA ($p < 0.01$)
Teaching load	0.3058		0.2893			0.3578		
Student numbers		0.4483		0.4717				
Student assessments		0.3906		0.4406		0.3867		
Demands from teaching existing courses				0.3330				
General admin.	0.2701							
Admin. for new courses			0.2595					
Demands of research		0.3435		0.4143				
Insufficient admin. support	0.3285		0.3054					
Institutional management style	0.2872		0.2709				0.2840	

Appendix 1.—continued

Correlations Between Factors Identified as Stressful with GHQ and MBI Scores for the Northern Ireland Sample

Factor	GHQ ($p < 0.05$)	GHQ ($p < 0.01$)	EE ($p < 0.05$)	EE ($p < 0.01$)	DP ($p < 0.05$)	DP ($p < 0.01$)	PA ($p < 0.05$)	PA ($p < 0.01$)
Teaching load	0.3157							
Student numbers	0.3429							
Student assessments	0.3402			0.3853				
Demands of teaching new courses	0.3627		0.3815					
General admin. Admin. for new courses	0.3086		0.3063	0.2766				
Demands of marketing courses			0.3354					
Demands of delivering GNVQs and/or NVQs	0.3146							
Insufficient admin. support			0.3305					
Staff appraisal	0.3482		0.3607					
Institutional management style	0.3384		0.3311					
Insufficient line manager support			0.3047					