

The Externalisation of Teachers' Occupational Stress

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It is hypothesised that teachers attribute responsibility for their occupational stress increasingly to entities increasingly "distant" from themselves. This phenomenon is explained in terms of the "loosely-coupled" nature of educational systems and a "self serving bias" in the attribution of responsibility. Significant differences for biographical variables in domains of occupational stress are discussed.

INTRODUCTION

A large part of the literature has been devoted to stress and stressors in teaching. Research has progressed from consideration of a single measure to a realisation that stress is multidimensional (for example, Kyriacou and Sutcliffe, 1978; Smilansky, 1984; McGrath et al., 1989). Whilst there is little doubt that some variables, apart from the teaching experience, such as significant life events, do mediate with occupational stress (Laughlin, 1984; Schonfeld, 1992), we consider research is more likely to be productive if focused upon occupational variables. Occupational stress in teaching may be approached in different ways. However, to proceed to the development of a viable theory, we propose, in the first instance, to consider the problem in terms of teachers' perceptions of self and the external world as it relates to the occupation of teaching. We shall consider the problem from the aspect of teachers' blame or attribution of responsibility for their occupational stress.

After self, the most likely entities to be held responsible for teachers' stress are students, peers, superiors, Department of Education, etc. When considering teachers' perceptions of their organisations in terms of systems, Weick's (1976) view of schools as loosely-coupled systems seems worthwhile. Undoubtedly all Department of School Education teachers and schools are, in fact, members of the Department of School Education. We might surmise, however, that when tension exists between teachers and the Department of School Education, they are unlikely to think of themselves as members of that organisation. The "family" provides an analogy. A person who complains that her or his "family" is too demanding separates himself or herself from that source of discomfort. At that time, the person does not include herself or himself in the "family". Similarly, when a teacher attributes responsibility for stress to the Department of School Education, it is not as a member of that organisation. This aspect should be taken into consideration when looking at the variables which might comprise a teacher's external world as it relates to the occupation of teaching.

The word stress is not by any means value free and may be construed to take a range of meanings. Some definitions are:

" ... a condition of mental and physical exertion brought about as a result of harassing events or dissatisfying elements or general features of the working environment" (Okebukola and Jegede 1989).

" ... the experience by a teacher of unpleasant emotions, such as tension, frustration, anxiety anger and depression resulting from aspects of his work as a teacher" (Kyriacou 1987).

"... the degree of tension, anxiety and/or pressure experienced by you. Stress can be related to apprehension, agitation, irritation, annoyance, fear, mental discomfort, nervous upset, inability to cope, frustration, unhappiness etc." (Laughlin 1984).

For the purpose of our wider study, we have adopted, and presented to our subjects, Laughlin's definition, allowing for some minor replication and comparison with his results. The unpleasant nature of stress, the "loosely-coupled" nature of the organisational "systems" and the likelihood that attributions of responsibility for stress could have a self-serving bias (Forsterling 1988), assists us to frame a hypothesis. In forming opinions on their occupational stress, we expect teachers to allocate responsibility for their stress increasingly to domains distant from "self".

THE SAMPLE

Results from two surveys are reported in this paper. Both samples are state-wide random samples of Department of Education teachers. Questionnaire forms were distributed so that each region and school type would be represented proportionately in the distribution. The first survey was completed by 111 teachers and the second by 387, although not all items were responded to by all subjects. Only the results of the RESPONSIBILITY for OCCUPATIONAL STRESS section are reported here for the first survey. All other results relate to the second survey.

THE INSTRUMENT

The instrument used in the second survey is a refinement of that used in the first. Teachers were required to provide biographical information: sex, number of years teaching with the Department of Education, infants/primary or secondary school, urban or non-urban location and whether or not the position held was that of executive or classroom teacher. The section measuring occupational stress had 38 items listing possible sources of stress. Subjects were asked to rate the intensity of stress experienced from each source. Available choices were: no stress, mild stress, moderate stress, much stress and extreme stress. In a third section, subjects were asked to rate how responsible (not at all, slightly, moderately, very or, extremely) they felt the nominated entities were for their occupational stress. The entities listed were: yourself, students, peers, superiors, your school organisation, the Department of Education, the Government and

Society. "Government" was not used in the first survey and was added to the second as a result of respondents' written comments.

TEACHERS' ATTRIBUTION OF RESPONSIBILITY FOR OCCUPATIONAL STRESS

Subjects' responses to responsibility items are shown in figure 1. A broad trend is evident from the diagram. In relative terms, a small proportion of these teachers rated themselves and their peers as "very" or "extremely" responsible for their occupational stress. In contrast, Society, Department of Education and Government were rated as being highly responsible. Superiors, school organisation and students were rated at an intermediate level.

In general terms, the hypothesis that greater responsibility would be attributed to an entity the "further away" it is from the individual is supported.

The 8 items from the second survey were subjected to a principal components analysis with varimax rotation. Three factors, which we named SCHOOL STRUCTURE, BUREAUCRATIC AUTHORITY and TEACHER-STUDENT RELATIONSHIPS were isolated, and are shown in table 1. Factors had eigenvalues 2.9, 1.6 and 1.1, and accounted for 36, 20 and 10 percent of the variance, respectively. The most interesting aspect of this solution is the third factor extracted, comprised of "students", "Society" and "yourself". The key to interpreting this factor may lie with the dichotomous view which teachers have of Society's responsibility for their occupational stress. Society is perceived as a critical, demanding entity external to the school. More relevant here, however, is the fact that 55% of this sample indicated that they experienced "much stress" or "extreme stress" from a "deterioration of Society's control over children". This latter view seems the more appropriate in this context. One interpretation of this factor is that the responsibility for occupational stress which teachers might attribute to themselves, is associated with controlling student behaviour. We intend to investigate this possibility further in the future.

PRINCIPAL COMPONENTS ANALYSIS OF STRESS ITEMS

It is not intended to report here, the details of the principal components analysis of the stress items. However, broad detail is required before proceeding. The factors isolated are listed in table 2. The names allocated are, in most cases, self explanatory. However, some description is probably needed. STUDENT DOMAIN describes sources of stress from students' bad or uncooperative behaviour. EXTERNAL (to school) DOMAIN loaded items related to Government and Department of Education policies and demands, and Society's criticisms of teachers. TIME DEMANDS consists of items indicating a paucity of time available to do the job properly. SCHOOL DOMAIN is comprised of items related to support from the principal and other colleagues, as well as the general supportive atmosphere of the school. The PERSONAL DOMAIN loaded items related to personal adequacy in the occupation of teaching. Factor scores were generated for each of the factors to be used in further analysis.

MULTIPLE REGRESSION WITH ANALYSIS OF VARIANCE OF BIOGRAPHICAL DATA AND STRESS FACTORS

To investigate possible differences between teachers in terms of the stress factors, analysis of variance using multiple regression techniques, as described by Kerlinger and Pedhazur (1973), was carried out. The biographical variables, scored on a nominal scale, were recoded into dummy variables. With this approach, the multiple regression F-test replicates the traditional ANOVA F-test. The stress factors, in the form of factor scores were entered as dependent variables (clearly, no causality is implied) and the dummy biographical variables were entered in a broadly, chronologically determined order: sex, number of years teaching with the Department of Education, school type, position held and location. The purpose of this ordering is to take account of a "natural" order of shared variance. For example, the variance associated with the variable "position held", may be partly explained by "sex", "number of years teaching" and "school type". It can be argued that entry in this order lends greater credibility to results. Variables for which F reached significance are reported in table 3.

Establishing the direction of these significant differences is done by considering the means of the factor scores by the relevant biographical sets. To provide a diagrammatic representation of these differences, a simple linear transformation was carried out on each mean using the respective mean and standard deviation of the pooled original items which comprised the factor. The original items were scored on a scale of 1 to 5 corresponding to: no stress, mild stress, moderate stress, much stress and extreme stress. The transformed means are shown in figures 2 to 10. It is probably not surprising that in the STUDENT DOMAIN, classroom teachers reported more stress than executive teachers. Executive teachers are generally more experienced, have less face-to-face teaching time and have greater authority for dealing with student misbehaviour. In the EXTERNAL (to school) DOMAIN, classroom teachers reported significantly higher stress than executive teachers. This is somewhat surprising, as we might expect executive teachers to experience greater demands stemming from external policies, and indeed, act as filters for the classroom teachers. A possible explanation is that in seeking promotion, executive teachers "embrace the system" and hence, have a greater acceptance of these circumstances. Also, in the EXTERNAL (to school) DOMAIN, secondary teachers reported significantly more stress than infants/primary teachers. Perhaps infants/primary teachers are less vulnerable to external pressures. It will be interesting to see if this difference is sustained, as considerable changes in primary curriculum are introduced in NSW. The difference between males and females, for the factor TIME DEMANDS, is consistent with other research (for example, Payne and Furnham, 1987) which suggests that females have greater demands on their time.

Three sets of significant differences were found for the factor SCHOOL DOMAIN. Secondary teachers reported more stress than infants/primary teachers. This is probably explained by the fact that infants/primary teachers do not have the discipline area distinctions in their work of

their secondary colleagues and generally work in smaller, possibly more supportive, groups. Classroom teachers report significantly more stress than executive teachers for this factor. This can be explained by the greater authority which executive teachers have in the school organisation. This is related to the third significant difference. Females report higher stress than males, possibly reflecting that the authority structure in schools is male-dominated; males either have more authority or more empathy with those in authority.

For the factor, PERSONAL DOMAIN, two differences were found. Figure 9 shows that the level of stress reported increases from the rural setting, through the large country city to the metropolitan area. The many differences in lifestyle associated with these locations may affect a teacher's perception of her or his personal adequacy. In reconsidering the third factor generated from the RESPONSIBILITY items, teacher-student relationships may be better in country schools. Finally, infants primary teachers reported more stress for the PERSONAL DOMAIN factor, than secondary teachers. When considered with the difference, in the opposite direction, for EXTERNAL (to school) DOMAIN, this suggests a possible difference in orientation between secondary and infants/primary teachers. We intend to investigate this further in the future.

CONCLUSION

In general terms, the hypothesis that teachers attribute more responsibility for their occupational stress to entities distant to self is supported. McCormick and Solman (1992) suggested that this may, for some teachers, be a defence mechanism. This fits with the notion of "self-serving bias" in attribution theory. Factors extracted by the principal components analysis are also, with the possible exception of TIME DEMANDS, interpretable in terms of responsibility for occupational stress. Analysis of biographical variables in terms of the factor scores provides evidence of perceived differences in stress levels attributable to the identified domains. We consider that investigating occupational stress, under the rubric of attributed responsibility, to be worthwhile; not least because we are dealing with teachers' perceptions of principal sources of their stress.

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TABLE 1

Factor groupings of responsibility items with factor loadings and (rounded) percentages of teachers responding in the two most extreme categories of much stress and extreme stress.

FACTOR 1: SCHOOL STRUCTURE

		Loading	Percentage
Superiors		.85	29
School organisation	.78		31
Peers		.77	13

FACTOR 2: BUREAUCRATIC AUTHORITY

Dept. of Education	.89	70
Government	.88	66

FACTOR 3: TEACHER-STUDENT RELATIONSHIPS

Students		.85	45
Society	.60		60
Yourself		.50	20

TABLE 2

Factors extracted by principal components analysis, with varimax rotation, of the occupational stress items.

STRESS FACTORS

	Student Domain
	External (to school) Domain
Time Demands	
School Domain	
Personal Domain	

TABLE 3

Significant differences on biographical data in analysis of variance using multiple regression of biographical data with stress factor scores.

STRESS FACTORS	BIOGRAPHICAL VARIABLES	DF	R2 CHANGE	F
Student Domain	position	1	.0188	6.665**

External (to school)				
Domain	position	1	.0132	5.191*
	school type	1	.0994	
38.399***				

Time Demands	sex	1	.0261	9.368**

School Domain	school type	1	.0127	4.511*
	position	1		.0338
12.404***				

Personal Domain	school type	1	.0854	32.915***
	location	2		.0279
5.525**				

*	significant at .05 level			
**	significant at .01 level			
***	significant at .001 level			

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