Individual contributory factors in teacher stress: The role of achievement striving and occupational commitment

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Workplace stress and its impact upon retention levels are becoming an increasing concern within the teaching profession (Brown, Davis, & Johnson, 2002; Jarvis, 2002). Research has largely focused upon the effects of environmental factors, whilst noting that it is the interplay between the individual and the environment which may hold the key to understanding this problem (Cox, 1978; Parkes, 1994). Identifying individual contributory factors is essential in understanding why, under the same environmental conditions, some people suffer much greater levels of stress than others. This study examined the influence of Type A behaviour, personal achievement strivings, occupational commitment, gender and nature/experience of teaching on perceived workplace stress within the teaching profession ($N = 95$). It was predicted that perceived stress would be strongest amongst those reporting higher levels of these factors. A multiple regression analysis indicated that there was a positive relationship between Type A behaviour, personal achievement strivings, and perceived stress. The relationship between perceived stress and occupational commitment, however, was found to be negative. The possible explanations for these findings, and potential implications, are discussed. Future research plans are outlined for exploring the relationships between these individual contributory factors and environmental stressors.

Stress has been identified as a response syndrome of negative affects, which are developed when there are prolonged and increased pressures that cannot be controlled by an individual’s coping strategies (Kyriacou, 1987). Since the first half of the 19th century, the concepts of stress and of life stresses have been applied to both biological and social systems, providing an explanation for the non-specific effects of biological agents, and for the occurrence of illness as a response to an individual’s social environment (Hinkle, 1973). Stress is now seen as one of the most important factors in human behaviour, as the concept has gradually become accepted in most forms of human discourse about life and health (Viner, 1999).

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According to Travers and Cooper (1996), a stressor is defined as something in the environment that acts as a stimulus that can be physical, psychological, or behavioural in nature. McGrath (1970) proposes that stress occurs when there is a perceived excess of environmental demands, over an individual's perceived capability to meet them. Argyle (1964) explains that one individual's interpretation of events, which causes them to feel stress, may vary greatly from another. So although environmental stressors may lead to perceptions of stress, it appears that individual factors intervene. Our reactions to life situations or social conditions are therefore dependent upon the way in which we attribute meanings to these experiences, or ways in which we appraise them.

Occupational stress has been reported as being a considerable problem within today's working professions. In 2001 and 2002, for example, an estimated 2.3 million people in the UK believed they were suffering from an illness that was caused, or made worse by, their current or past work (Jones, Huxtable, Hodgson, & Price, 2003). Unremitting occupational stress is strongly associated with heart disease, hypertensive diseases, gastrointestinal disorders, insomnia, depression, and alcoholism (Furnham, 1992; Sethi & Schuler, 1984). Consequently, it may have a huge impact both on an individual's well-being, and on the organization as a whole. For example, it may affect productivity, job performance, staff retention, and increase the amount of money that the company spends on covering sick leave, and providing replacement staff (Ganster & Schaubroeck, 1991; O'Driscoll & Cooper, 1996; Sethi & Schuler, 1984).

The UK government is currently concerned with the levels of retention within the teaching profession. In the 2001/2002 annual report from the Office for Standards in Education (2003), recruitment difficulties were highlighted as having an adverse impact on pupils' standards of academic achievement, as a lack of specialist teachers, and the teaching quality of temporary and support staff was causing great concern. Teachers themselves reported that factors such as workload, initiative overload, a target-driven culture, and pupils' behaviour and discipline, relate significantly to their desire to leave the profession (Brown et al., 2002). In a review of recent polls in this area, Jarvis (2002) reported that teaching is seen as hard, poorly paid, and held in low public esteem. Consequently, it appears that such representations of the profession as a highly stressful occupation are having a detrimental effect on recruitment and retention.

According to Borg (1990), approximately a third of all teachers will find their occupation extremely stressful. Travers and Cooper (1993) found that in comparison to other occupations, teachers experience much higher levels of stress. This is supported by a research report from the Health and Safety Executive which confirmed that teaching is one of the most stressful professions, with 41% of teachers reporting high levels of occupational stress (Smith, Brice, Collins, Matthews, & McNamara, 2000). This is compared with 31% in nursing, 29% in managerial jobs, and 27% in professional and support management.

High levels of occupational stress, when experienced in the long term, can lead to a state of 'burnout'. Burnout has been identified as a feeling of physical, emotional and mental exhaustion, resulting from a chronic state and accumulation of pressure and stress at work (Golembiewski, Munzenrider, & Carter, 1983). Teacher burnout is well documented in recent research (for example Blase, 1982; Byrne, 1994; Dworkin, 2001; Farber, 1991; Van Horn, Schaufeli, & Enzmann, 1999) and evidence suggests that it is very possible that the effects of burnout represent a significant problem within the profession. Research has demonstrated, for example, that burnout is associated with both psychological and physiological symptoms. This includes somatic complaints (Shirom, 1986), psychosomatic symptoms (Sakharov & Farber, 1983), and a decrease in
mental health (Brenner & Bentall, 1984). In addition, research also suggests that it is significantly related to teacher retention (Lachmant & Diamant, 1987), turnover (Jackson, Schwab, & Schuler, 1986) and quality in teaching (Cherniss, 1980).

In order to find interventions to alleviate the problem of teacher stress and burnout, it is considered necessary to identify the main contributory factors. The majority of previous research has focused upon environmental factors that may precipitate stress. This includes negative environmental stressors (Cooper & Marshall 1976), role conflict (Mils & Perreault, 1976), relationships with colleagues (Dunham, 1977), and the attitudes and behaviours of pupils (Cichon & Koff, 1978). Other research has highlighted how certain factors intrinsic to the teaching profession can facilitate high levels of stress. For example, heavy workloads and long working hours (Travers & Cooper, 1997), overload of competing roles (Pithers & Soden, 1998), inconsistent workloads over the academic year (Kinnunen & Leskinen, 1989), the need for classroom management (Lewis, 1999; Morton, Vesco, Williams, & Awender, 1997), and evaluation apprehension (Capel, 1997; Morton et al., 1997).

It appears that some professions, including teaching, are potentially very stressful, but research also suggests that individual differences are quintessential to understanding the variation in workplace stress (Parkes, 1994). Teachers will all be exposed to similar intrinsic job factors, and environmental stressors would be expected to be relatively constant for those working in a similar setting under comparable conditions. Not everyone, however, suffers high levels of stress, as some individuals will be much more susceptible than others, and only a small percentage reach the burnout stage. Teacher stress levels have been found to differ cross-culturally (Travers & Cooper, 1997), and across levels of education (Male & May, 1998). It is evident therefore that teacher stress is associated with multifarious factors, including intrinsic job factors, environmental factors, and individual factors (Jarvis, 2002; Kyriacou & Sutcliffe, 1978).

Cox (1978) explained this in terms of a transactional model, whereby there is considerable interplay between the environment and the individual. It is probable that although external factors trigger stress perceptions, individual factors play a part in either mediating or moderating perceived stress. Travers and Cooper (1996) maintain that stress is usually a very personal phenomenon, suggesting therefore that there are potential personality traits that could affect stress responses. Additionally, Parkes (1994) reported how ‘relatively few dimensions of personality have been identified as moderators of relations between work stress and health outcomes’ (p. 114).

Research examining personality traits in connection with stress and stress-related illness has focused upon Type A behaviour patterns (e.g. Burns & Bluen, 1992; Ganster, 1987; Jex, Adams, Elacqua, & Bachrach, 2002). Type A behaviour has been associated with a variety of different personality traits (Rosenmen, 1989), including impatience, hostility, irritability, competitiveness, and achievement strivings. Individuals can be reliably categorized into either Type A or Type B using a simple self-report measure (Bortner, 1969). Ganster (1987) suggested that if Type A and Type B faced equal occupational demands, Type A would show more pronounced physiological and emotional reactivity, including gastrointestinal symptoms, respiratory symptoms, sleep disorders, chest pains (Woods & Burns, 1984), headaches and migraines (Rappaport, McAnulty, & Brantley, 1988).

Ward and Eisler (1987) suggest that stress is related to an individual’s tendency to strive for achievement. Furthermore, achievement striving is associated with Type A behaviour patterns (Friedman & Rosenman, 1959, 1974). Friedman and Ulmer (1984) described this personality trait as ‘a continuous struggle, an unremitting attempt to
accomplish or achieve more and more things’ (p. 31). One could surmise, therefore, that within a particular working environment where a highly ambitious individual is, for example, overburdened with tasks or encounters frequent interruptions, they may experience more stress because they ‘perceive’ these aspects as endangering the fulfilment of task-related goals (Semmer, 1996).

Both Type A behaviour patterns and achievement striving appear to be potential individual contributory factors in teacher stress (Jamal, 1990). Although it has been noted that achievement striving is an important factor in the teaching profession relating to a desire to stay in the profession (Brown et al., 2002), this factor has not been tested in the context of perceived stress. Also, general achievement striving has been measured rather than achievement striving specific to teaching aspirations. The potential implications of identifying whether personality dimensions are related to job stressors are clear, as it would help to identify which individuals are most susceptible and vulnerable to workplace stress (Jarvis, 2002). Coping techniques could also be specifically developed, therefore targeting the most susceptible individuals, and facilitating enhanced well-being in the workplace (Parkes, 1994).

Another factor that may mediate or moderate perceived stress is the teacher’s level of occupational commitment. Burns and Bluen (1992) note how commitment to a profession is positively related to achievement striving. The relationship between occupational commitment and stress has frequently been neglected in occupational research, although several researchers have speculated that commitment to a profession may be related to job stressors (e.g. Appeals, 1989; Hallsten, 1993).

It would be useful to establish whether there is a significant association between occupational commitment and stress in the workplace, and the direction of that relationship. It could be, for example, that an absorbing occupational commitment increases vulnerability because failures are not taken as inevitable drawbacks, but as general personal failures consequently increasing feelings of stress (Hallsten, 1993). Equally plausible is that those with greater commitment to the teaching profession cope with stress more easily because they believe in the value of being a teacher, despite the stressors and drawbacks they might face (Kobasa, 1982; Antonovsky, 1979). The relationship between occupational commitment and stress is probably quite complex, as feeling stressed may also affect how committed and satisfied one feels with one’s occupation.

Other individual contributory factors that may affect stress perceptions in teachers include the gender of the teacher, and their experience of teaching (more specifically what type of school they work in, how long they have been a teacher, and whether they work full- or part-time). It is well established in research that women on average tend to suffer significantly higher levels of perceived stress (e.g. Gardiner & Tiggemann, 1999), and they may also adopt different coping strategies to men (Gianakos, 2002). International studies examining teachers’ stress levels more specifically, have often failed to find any gender differences (e.g. Paese & Zinkgraf, 1991; Ushasree, Seshu-Reddy, & Vinolya, 1995), or note that the gender difference is inconsistent across studies (Antiniou, Polychroni, & Walters, 2000; Kyriacou, 1987). Nevertheless, it would be interesting to include the gender of the teacher as a potential contributory factor to occupational stress in a sample of teachers from UK schools. It is also expected that stress levels may vary dependent upon the educational level taught (Male & May, 1998), and the amount of time spent teaching per week. Years of experience in the profession would possibly also contribute to stress levels. It could be that, as stress is cumulative, the longer they have been a teacher, the more stressed they will be.
Alternatively, with greater experience teachers could adapt their coping skills and manage stress more effectively.

In summary, this study hypothesizes that personality (as measured by Type A behaviour and level of teacher-specific achievement striving), occupational commitment, experience of teaching, and gender will all contribute to increasing levels of perceived stress. It is also anticipated that those displaying higher Type A behaviour patterns and achievement striving will perceive themselves on average to be more highly stressed.

**Method**

**Participants**

The sample consisted of 95 teachers from schools in the UK. A snowball sampling technique was used. There were 71 female (68%) and 24 male teachers (32%). Teachers were recruited from both primary (68%) and secondary schools (32%). Of the teachers who completed the questionnaire, 87% worked full time, 10% part time and 3% worked as supply teachers. The average length of time in the profession was 12.3 years (with a standard deviation of 8.9), and ranged from 5 months to 33 years. The overall response rate was 60%.

**Measures**

**Perceived Stress Scale**

Perceived stress was assessed using the Perceived Stress Scale (PSS; Cohen, Kamarck, & Mermelstein, 1983). The PSS has 14 items and the response alternatives on each item ranges from 0 = never, 1 = almost never, 2 = sometimes, 3 = fairly often, and 4 = very often. PSS scores are obtained by reversing the scores on the seven positive items (Items 4, 5, 6, 9, 10, and 13) and then summing across all 14 items. Previous research has established the reliability and validity of the PSS (e.g. Cohen et al., 1983).

**Type A behaviour scale**

Type A behaviour was assessed with the Bortner (1969) scale. This scale has 14 items and the response range on each item is 1-11. This scale has been widely utilized in health science (e.g. Gallacher, Sweetnam, Yarnell, Elwood, & Stansfeld, 2003; Tunstall-Pedoe, Woodward, Tavendale, Brook, & Mccluskey, 1997; Yoshimasu, 2001), and psychology (e.g. Jamal, 1990, 1999), to identify Type A and Type B behaviour. Previous research has demonstrated that this measure has adequate reliability, construct validity (Bortner 1969), and predictive validity (Jamal, 1990). A score of 84 or above on this scale is classified as Type A behaviour, and a score of 14–83 as Type B behaviour.

**Scale development**

New scales were required to measure achievement striving specific to the teaching profession, and occupational commitment. Achievement striving is defined as the ‘tendency to work hard to achieve goals’ (Spector & O’Connell, 1994, p. 4), and statements developed represented a high need for achievement within the teaching profession. Items for both of these scales were generated based upon results from a small focus group of psychologists and teachers. Initially, 15 items were created for this scale, but through discussions between the authors of this paper, this was reduced to 10 items.
Items with clear conceptual overlap, or which were considered to be ambiguously phrased, were removed. Respondents are required to answer whether they agree with the statement using a 5-point Likert scale with 1 = *strongly disagree*, and 5 = *strongly agree*.

Occupational commitment was defined as ‘dedication and loyalty to the teaching profession’. Statements developed represented high occupational commitment with the exception of one item (Item 6), which was reverse scored. There were originally 10 items generated from the focus group, which was reduced to a 6-item scale based on the authors’ discussions. Again the same 5-point Likert scale was implemented. The items and the psychometric assessment of these scales are presented in the results section.

**Procedure**
Along with the new and existing measures, participants were also asked to record their gender, the length of time they have been a teacher, the type of school/college they teach in, and whether they teach on a full- or part-time basis. The measures were counterbalanced in terms of presentational order and administered to teachers in the participating schools. The questionnaires were kept completely anonymous to protect the identities of the participants, and to keep the schools involved confidential. A cover letter accompanied the questionnaires giving a brief introduction to the investigation and contact details, in case any of the participants wished to receive any additional information concerning the study.

**Results**

*Psychometric properties of the Teacher Achievement Striving Scale (TASS) and the Teacher Occupational Commitment Scale (TOCS)*

**Teacher Achievement Striving Scale (TASS)**
An exploratory factor analysis using maximum likelihood estimation was conducted on the results from the TASS. One factor was extracted based upon examination of the eigenvalues and the scree plot. This factor accounted for 28.83% of the variation, and was labelled ‘teacher-specific achievement striving’. This is a low percentage of variation for a single-factor solution, but with such a limited sample size further validation work could not be conducted. All 10 items loaded on this factor with factor loadings greater than .30. The items with their respective factor loadings are presented in Table 1. Items 1, 2, and 7 were quite weak items with factor loadings below .40, although the remaining items displayed quite good validity with factor loadings from .51 to .69.

Reliability analysis was also carried out using item–total correlations to establish item homogeneity. The 10-item TASS demonstrated adequate internal consistency with Cronbach’s $\alpha = .75$.

**Teacher Occupational Commitment Scale (TOCS)**
An exploratory factor analysis using maximum likelihood estimation was conducted on the results from the TOCS. One factor was extracted based upon examination of the eigenvalues and the scree plot. This factor accounted for 38.49% of the variation, and was labelled ‘commitment to the teaching profession’. All six items loaded on this factor
Reliability analysis was also carried out using item-total correlations to establish item homogeneity. The 6-item TOCS demonstrated adequate internal consistency with Cronbach’s $\alpha = .76$.

**Descriptive statistics**

Table 3 contains the descriptive statistics for scores on the Type A behaviour scale, TASS, TOCS and the Perceived Stress Scale.

Considering the mean score for the Perceived Stress Scale, it indicates that on average participants reported moderate levels of perceived stress. The mean scores for both achievement striving and occupational commitment were quite high, and on average participants’ scores on the Type A personality were high enough to classify them as displaying Type A (as opposed to Type B) behaviour patterns. In fact, when classifying the teachers as either Type A or Type B (with scores of 84 and above indicating Type A individuals), 88.4% of the teachers displayed Type A behaviour patterns, and only 11.6% displayed Type B.
Predicting perceived stress

Multiple regression with direct entry was conducted. This technique was chosen as it was important to establish the relative importance of different variables, whilst using a type of multiple regression that was appropriate for the exploratory nature of this research. The study aimed to test whether the individual contributory factors of gender, length of time teaching, type of school, full- or part-time work, Type A personality, teacher-specific achievement striving, and occupational commitment to the teaching profession, significantly predicted perceived stress levels in this sample.

The value of $R^2$ for this model is .536, indicating that the variables account for 53.6% or less of the variation in perceived stress. The contributory factors selected for this model therefore explain a large amount of the variation in the measurement of perceived stress. The adjusted $R^2$ is .499, indicating that the model could be generalized. The model is also significantly better at predicting perceived stress than chance alone, $F(7, 87) = 1.35$; $p < .01$.

The results of the multiple regression are presented in Table 4, which indicates the relative importance of each contributory factor in predicting perceived stress. All of the individual contributory factors, with the exception of gender of the teacher, how long they had been a teacher, and whether the work is full- or part-time, were statistically significant at the .05 level of significance. The strongest predictor of perceived stress was occupational commitment, with a standardized $\beta$ coefficient of $-0.589$ ($p < .001$; confidence intervals $-1.680$, $-0.974$). This is a strong negative relationship, indicating that as occupational commitment increases, perceived stress decreases. The second strongest predictor was achievement striving, with a standardized $\beta$ coefficient of $0.312$ ($p < .001$; confidence intervals $0.232$, $0.808$). This is a moderate positive relationship, so that teachers with higher achievement striving experience higher levels of perceived stress. In addition, Type A behaviour was also a significant predictor of perceived stress, with a standardized $\beta$ coefficient of $0.265$ ($p < .01$; confidence intervals $0.048$, $0.218$). This is a moderate positive relationship, indicating that teachers with Type A behaviour patterns report greater levels of perceived stress. Finally, there was a moderate significant negative relationship between the type of school (standardized $\beta = -0.243$; $p < .05$; confidence intervals $-0.901$, $-1.482$) and perceived stress. As this variable is coded with 1 as primary school, and 2 as secondary school, this indicates that more stress is perceived in teachers of primary school children than secondary school children. The confidence intervals for occupational commitment, achievement striving, and Type A behaviour are not too wide, and importantly do not cross zero, indicating that the findings for these variables may be quite representative across samples. The confidence interval for type of school is much wider, and although it does not cross zero, this finding seems less representative.

### Table 4. Means (and standard deviations) of scores on the Type A behaviour scale, TASS, TOCS, and PSS

<table>
<thead>
<tr>
<th>Scale</th>
<th>Mean (and standard deviation)</th>
<th>Possible range of scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type A behaviour</td>
<td>103.25 (17.96)</td>
<td>14–154</td>
</tr>
<tr>
<td>Teacher Achievement Striving</td>
<td>39.71 (5.41)</td>
<td>10–50</td>
</tr>
<tr>
<td>Teacher Occupational Commitment</td>
<td>23.32 (4.00)</td>
<td>6–30</td>
</tr>
<tr>
<td>Perceived Stress</td>
<td>26.30 (9.02)</td>
<td>0–56</td>
</tr>
</tbody>
</table>

### Table 3. Means (and standard deviations) of scores on the Type A behaviour scale, TASS, TOCS, and PSS

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Gender, length of time in the teaching profession, and whether the teacher was full-or part-time were not significant predictors of perceived stress. Table 5 shows the correlations between all of the factors included in the multiple regression. This indicates that although the length of time spent in teaching is not a significant predictor of stress, there is a significant positive correlation between these two factors, \( r = 0.248; p < 0.05 \). Also of interest is the significant positive correlation between achievement striving and Type A behaviour, \( r = 0.372; p < 0.01 \). This adds evidence regarding the convergent validity of the TASS as achievement striving is a specific component of Type A behaviour patterns.

**Table 4. Summary of multiple regression results for the individual contributory factors as predictive determinants of perceived stress**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized coefficients</th>
<th>Standardized coefficients</th>
<th>95% confidence intervals for ( \beta )</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( \beta )</td>
<td>Standard error</td>
<td>( \beta )</td>
</tr>
<tr>
<td>Constant</td>
<td>28.053</td>
<td>7.703</td>
<td>3.642</td>
</tr>
<tr>
<td>Type A</td>
<td>0.133</td>
<td>0.043</td>
<td>0.265</td>
</tr>
<tr>
<td>Achievement striving</td>
<td>0.520</td>
<td>0.145</td>
<td>0.312</td>
</tr>
<tr>
<td>Occupational commitment</td>
<td>-1.327</td>
<td>0.177</td>
<td>-0.589</td>
</tr>
<tr>
<td>Gender</td>
<td>1.780</td>
<td>1.766</td>
<td>0.086</td>
</tr>
<tr>
<td>Length of time teaching</td>
<td>0.123</td>
<td>0.080</td>
<td>0.121</td>
</tr>
<tr>
<td>Type of school</td>
<td>-4.692</td>
<td>1.615</td>
<td>-0.243</td>
</tr>
<tr>
<td>Full/part-time</td>
<td>-3.169</td>
<td>1.609</td>
<td>-0.156</td>
</tr>
</tbody>
</table>

Discussion

The aim of this study was to identify the role of individual contributory factors in teacher stress. The results revealed that the strongest predictor of work-related stress, with a strong negative relationship, was occupational commitment, indicating that as occupational commitment increases, perceived stress decreases. As anticipated it was found that achievement strivings and Type A behaviour displayed a moderate positive relationship with perceived stress, indicating that as these factors increase, stress also increases. The multiple regression analysis also showed that significantly higher levels of perceived stress were reported from primary school teachers than secondary school. This study has therefore demonstrated that individual contributory factors are significant to the prediction and understanding of occupational stress experienced within the teaching profession.

The strong negative relationship found between occupational commitment and perceived stress suggests that this individual factor may actually moderate the impact of job stressors. The finding is substantiated by the work of Siu and Cooper (1998), who also described this variable as having a moderating effect. Their results indicated that organizational commitment appeared to 'buffer' many of the work stressors-strain relationships. However, despite this apparent moderating effect, it is probable that the relationship between occupational commitment and perceived stress may be
Table 5. Pearson’s correlation matrix of all the factors included in the analysis

<table>
<thead>
<tr>
<th></th>
<th>Gender</th>
<th>Length of time teaching</th>
<th>Type of school</th>
<th>Full/part-time</th>
<th>Perceived stress</th>
<th>Type A behaviour</th>
<th>Achievement striving</th>
<th>Occupational commitment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Length of time teaching</td>
<td>.015</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Type of school</td>
<td>–.439***</td>
<td>.020</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Full/part-time</td>
<td>–.012</td>
<td>.266***</td>
<td>.013</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Perceived stress</td>
<td>.173</td>
<td>.248*</td>
<td>–.191</td>
<td>–.120</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Type A Behaviour</td>
<td>.267***</td>
<td>.060</td>
<td>–.059</td>
<td>–.161</td>
<td>.317***</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Achievement striving</td>
<td>–.135</td>
<td>.098</td>
<td>.256*</td>
<td>–.228*</td>
<td>.264***</td>
<td>.372***</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Occupational commitment</td>
<td>.089</td>
<td>–.214*</td>
<td>–.043</td>
<td>–.207*</td>
<td>–.440***</td>
<td>.229*</td>
<td>.203*</td>
<td>–</td>
</tr>
</tbody>
</table>

*p < .05.

**p < .01.
bidirectional, so that if an individual experiences stress in their working environment, they will be likely to feel lower occupational commitment. This concurs with research by Jamal (1990) who concluded that when individuals are confronted with high job stressors it is quite reasonable for them to experience a decrease in occupational commitment, low job satisfaction, and a higher desire to leave the profession.

Achievement strivings was found to be a significant predictor of perceived stress with a moderate positive effect, indicating that as achievement strivings increase, stress increases also. This finding is consistent with Jex et al. (2002) who reported that relations between stressors and strains were strongest amongst those reporting higher levels of achievement strivings. The implications of these findings are that it is possible that in situations where highly motivated and ambitious individuals come into contact with unavoidable environmental job stressors, perceptions of stress will increase. Consequently, it appears that job stressors will have the greatest negative impact on those individuals who are motivated to strive for high levels of achievement.

Consistent with previous research, Type A behaviour was also found to significantly predict perceived stress. The relationship was moderate and positive, indicating that this personality trait appears to mediate the existing effects of environmental stressors. The results are consistent with Ganster’s (1987) suggestion that if Type A and Type B people were to face equal occupational demands, Type A would show more pronounced physiological and emotional activity. Subsequently, these individuals would be most at risk of experiencing high levels of perceived workplace stress.

The results indicated that teachers of primary school children reported the highest levels of perceived stress. There is some evidence for this difference between primary and secondary school staff in the existing literature (e.g. Cooper & Kelly, 1993). However, in the current study, the significant relationship was weak and may not be representative across samples, suggesting that this finding needs to be replicated in a larger scale follow-up study. No significant difference in levels of perceived stress was found between males and females; this is also somewhat substantiated by previous research (Kyriacou, 1987).

The implications associated with this type of research are indeed significant, as the impact of perceived stress upon staff retention and recruitment to the profession is seen to be substantial (Jarvis, 2002). There is a clear need to establish environmental and intrinsic job factors so that interventions can be made to make the working environment and the profession as stress-free as possible. In addition, by identifying individuals who are more likely to suffer stress in their work, organizations can identify those who need to be better supported. Consequently, programmes can be implemented to train these individuals to develop more effective coping strategies which are adaptive to the inevitable demands and pressures of the teaching profession. Research on individual contributory factors could also potentially inform theory on position allocation and job selection procedures in human resource management (Parkes, 1994), although this may be difficult to implement in practice.

By exploring the variety of different factors that contribute to occupational stress we can aim to aid organizations in fostering a healthy working environment. Such an individualistic working ideology could be extremely conducive to encouraging greater occupational commitment, which had a significant impact on reducing perceived stress in this sample of teachers. Such research can therefore have a very real positive effect on informing occupational health policy on work-related stress, which may help to minimize levels of stress and increase job satisfaction. It could also have a positive effect at an organizational level, for example, in some studies job satisfaction has been shown
to increase productivity (Iaffaldano & Muchinsky, 1985; Petty, McGee, & Cavender, 1984; Ostroff, 1992), less absenteeism through stress-related illnesses will save the organization considerable amounts of money, and positive representations of the profession will improve retention and recruitment.

The findings from this study support that some individual contributory factors either mediate or moderate the relationship between environmental stressors (and intrinsic job factors) and perceived levels of stress in teachers. This suggests that personality and individual differences are pivotal to understanding why some people suffer work-related stress, while others in the same working environment facing similar job-specific demands do not suffer high levels of stress (Furnham, 1992; Parkes, 1994). Workplace stress appears to be more realistically viewed as an influence of different factors and may therefore be best understood using a ‘transactional model’ of workplace stress (Cox, 1978), whereby the interaction between different types of contributing factors can be explored.

Clearly the individual factors identified in this study need to be examined within the wider context of a ‘transactional model’ where the interplay between these factors; environmental, and intrinsic job factors can be tested. Individual characteristics and their relationship to individual differences in the perception of stress have been examined in this questionnaire-based study, but future research is needed. This could involve testing whether individuals exposed to the same working conditions in the teaching profession all suffer stress to a similar extent, or whether these individual characteristics can help explain why some individuals are clearly more susceptible to stress than others. There is a need for a systematic nationwide study identifying and exploring a broader range of individual contributory factors, also measuring environmental and intrinsic job features.

References
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