

Effort-reward imbalance and over-commitment in UK academics: implications for health,
satisfaction and retention

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Abstract

This study utilises the effort-reward imbalance (ERI) model of job stress to predict several indices of wellbeing in UK academics: mental ill health, job satisfaction and leaving intentions. This model posits that: a) employees who believe that their efforts are not counterbalanced by sufficient rewards will experience impaired wellbeing and b) feelings of ERI are more frequent and damaging in employees who are over-committed to the job. A sample of 649 academic employees working in HEIs in the UK completed validated measures. Findings showed that academics who found their work more demanding, who perceived greater rewards and who were less over-committed typically reported poorer wellbeing across all measures. Rewards related to esteem/support and financial/status appeared to be particularly important in protecting academics from the negative impact of work-related efforts. Potential interventions are discussed that draw on the ERI framework to improve mental health, satisfaction and retention in the sector.

KEYWORDS: Stress; wellbeing; job satisfaction; effort-reward imbalance

Introduction

Studies conducted in several countries indicate that academic employees find their work stressful (e.g. Catano et al., 2010; Coetzee & Rothmann, 2005; Kinman, Jones & Kinman, 2006; Tytherleigh, Webb, Cooper, & Ricketts, 2005; Winefield, Boyd, Saebel, & Pignata, 2008). Research that has tracked the work-related wellbeing of academics working in the United Kingdom (UK) over several years (from 2008 to 2014) suggests that the demands experienced by academics have increased over time and the resources that have traditionally protected them from work-related stress, such as autonomy, support and role clarity, have eroded (Kinman & Wray, 2015). Several reasons for the increased intensification of work in higher education (HE) could be identified stemming from the radical reforms experienced in the sector in many countries. These include the 'massification' of HE; a student body from an increasingly varied social, cultural and educational background; increased demands for transnational education; the introduction of market-led policies requiring diversification and regular redesign; more stringent requirements for accountability and efficiency; an increased pressure to publish; the introduction of more "judgemental" performance management systems regarding the direction, quality and impact of teaching and research output; and more rigorous monitoring of the student experience (Altbach, 2000; Bentley, Coates, Dobson, Goedegebuure, & Meek, 2013; Biron, Brun, & Ivers, 2008; Miller, Taylor, & Bedeian, 2011; Shin & Jung, 2014; Tytherleigh et al., 2005; Ter Bogt & Scapens, 2012; Winefield et al., 2008; Yussof & Khan, 2013). A shift towards a more bureaucratic and non-participative style of management has also been highlighted, which is widely considered incompatible with expectations of collegiality and academic freedom (Fanghanel, 2012). There is also evidence that frequent restructuring and an extensive and ongoing change agenda have increased job insecurity and engendered change fatigue for many academic staff (Kinman & Wray, 2015; Whitley & Glaser, 2014).

The diversification of academic roles is a key driver of the intensification of work in the sector; a 'typical' academic job requires the demonstration of excellence in teaching, research, administration and pastoral care, and frequently through involvement in the external knowledge economy and contributions to public policy (Musselin, 2007). Role accumulation can enrich jobs and offer employees a wide ranging of practical and psychological benefits such as increased salary and mobility and enhanced skills, status security and prestige esteem (Rothbard, 2001). Nonetheless, the accrual of roles has clear potential to increase the effort that employees are expected to put into their work to fulfil the demands made upon them from various sources with serious implications for their wellbeing. Indeed, studies conducted in the HE sector in several countries have highlighted the potential for work overload to impair the wellbeing and satisfaction of academic staff (Barkhuizen & Rothmann, 2008; Idris 2011; Taris, Schreurs, van Lersel-van Silfhout, 2001).

As well as being at high risk of work-related stress, there is evidence that the mental health of academic employees is comparatively poor. Studies of academics in the UK and Australia conducted over the last decade have found levels of depression and anxiety that exceed many other occupational groups (Edwards, Van Laar, Easton, & Kinman, 2008; Kinman & Wray, 2015; Winefield et al., 2008). Moreover, a systematic review conducted by Watts and Robertson (2011) reported a level of burnout among academics similar to that found in 'high risk' groups, such as health and social care employees, with younger staff being particularly vulnerable. Other research indicates that the effort that academics are required to put into their job can engender conflict between work and personal life, which can be a considerable source of distress (Kinman & Jones, 2008; Winefield, Boyd, & Winefield, 2014). Nonetheless, although academic work can be demanding and stressful, there is also evidence that it can be satisfying and rewarding (Bentley et al., 2013; Catano et al., 2010). Factors such as autonomy, variety, role clarity, intellectual challenge, collegiality, contribution to society, respect from colleagues and managers, and the ability to gain self esteem from professional reputation, have been cited as particularly powerful sources of satisfaction for academics (e.g. Adriaenssens, De Prins, & Vloeberghs, 2006; Lacy & Sheehan, 1997; Miller et al., 2011; Sabharwal & Corley, 2009; Winefield et al., 2003; Zabarauskaitė, 2010).

Although some insight has been gained into the work-related wellbeing of academics, most studies have not been underpinned by theory. Models of job stress can identify the characteristics of work that are most stressful or satisfying, as well as determine the factors that can threaten or protect the wellbeing of employees. Some models also incorporate individual differences, such as personality characteristics or particular behaviors, which can moderate the individual's susceptibility to stressors and strains (Mark & Smith, 2008). Theory-driven research, therefore, has strong potential to inform the development of precisely-targeted interventions to improve work-related wellbeing. As many models of workplace stress are available, however, it is crucial to select one that is relevant to the specific occupational context (Sparks & Cooper, 1999).

The job demand-control model (JDC: Karasek 1979) is one of the most popular theoretical models of work stress. It postulates that autonomy offsets the negative impact of job demands, implying that the wellbeing of employees can be improved by increasing control over aspects of work such as timing and decision-making. The JDC model has been tested in a study conducted in a UK university, but only a small proportion of variance in psychological distress was explained and no evidence emerged for the protective effects of job control (McClenhan, Giles, & Mallett, 2007). The authors concluded that the model lacks specificity in this context and future research should utilise variables that better reflect the

working conditions of academics. Although the academic profession has traditionally been characterised by high autonomy, there is evidence that this is diminishing over time (Kinman & Wray, 2015). Opportunities to offset the negative impact of job demands by increasing control may therefore be limited.

Alternative frameworks, such as the Effort-Reward Imbalance model (ERI; Siegrist, 1996), may better reflect current working conditions in the HE sector and identify more feasible interventions. This model is based on the need for contractual reciprocity, whereby strain is the outcome of an imbalance between the efforts that employees believe they invest in their work and the rewards that they receive. People employed in jobs requiring strong intrinsic motivation (such as academics) are thought to be particularly sensitive to conditions of inequity (Siegrist, 2001). Efforts encompass perceptions of workload, time pressure, level of responsibility and the extent of interruptions while working. Studies of academics have highlighted the stressful nature of each of these factors (Kinman, 2001; Kinman and Jones, 2003; Melin, Astvik, & Bernhard-Ottel, 2014; Pignata & Winefield, 2013; Winefield et al., 2008). Moreover, the model's focus on the overall effort that employees put into their work reflects the intensification and diversification of academic roles discussed above.

The ERI model predicts that employees who believe that they receive "appropriate" rewards for their efforts will be healthier and more satisfied, whereas those who perceive a lack of reciprocity will experience poorer wellbeing (Siegrist, 2001). Studies have associated an ERI at work with a wide range of negative outcomes such as poor physical and mental health, sleeping difficulties, job dissatisfaction, sickness absence and leaving intentions (Derycke et al., 2010; Siegrist, 2012; Tsutsumi & Kawakami, 2004; Van Vegchel, De Jonge, Bosma, & Schaufeli, 2005). Three types of reward are included in the ERI framework: a) finance/status; b) esteem/support; and c) job security. Previous research has identified poor salary, limited promotion prospects and job insecurity to be powerful sources of stress and dissatisfaction for academics (Oshagbemi, 1996; Tytherleigh et al., 2007). Nonetheless, other studies have found that they place less emphasis on salary and status than members of other occupational groups and that these external factors are largely unrelated to wellbeing (Houston, Meyer, & Paewai, 2006; Ward & Sloane, 2000). As discussed earlier in this paper, academics may be more strongly motivated by less tangible factors such as recognition and positive working relationships (Winter & Sarros 2002). It is likely therefore that esteem and support rewards would be more likely to protect wellbeing than those attached to pay, opportunities to progress or job security. This study examines this possibility.

The ERI model predicts that the experience of imbalance will be more frequent and more damaging in employees who are excessively committed to work. 'Over-commitment' is defined as "a set of attitudes, behaviours and emotions that reflect excessive striving in combination with a strong desire of being approved and esteemed" (Siegrist, 2001, p. 55). There is some conceptual overlap between over-commitment and involvement in that both represent a profound identification with the job and an internal drive to work excessively (Siegrist, 2012). Several studies have found a high level of job involvement among academics, who typically work within a culture where long working hours and a poor work-life balance are normalised, or even celebrated (e.g. Hogan, Hogan, Hodgins, Kinman, & Bunting, 2014; Kinman & Jones, 2008). Although 'loving one's job' can benefit health and be critical for career success (Kelloway, Inness, Barling, Francis, & Turner, 2010), employees who are over-committed to work are at particular risk of work-related stress due to limited recovery opportunities (Avanzi, van Dick, Fraccaroli, & Sarchielli, 2012; Siegrist et al., 2001). It might therefore be expected that academics that are more over-committed will

be less mentally healthy, but the extent to which this predicts job satisfaction and leaving intentions is as yet unknown. This is examined in the present study.

Aims

The present study extends previous knowledge of the wellbeing of academics by utilising an extended version of the ERI model to predict three aspects of wellbeing. More specifically, it examines relationships between effort-reward imbalance and over-commitment and mental health problems, job satisfaction, and leaving intentions in academics working in UK universities. With very few exceptions, studies that have tested the ERI model have utilised an aggregate measure of finance/status, esteem/support and job security rewards (Siegrist & Peter, 1996). Although this approach can identify the broad effects of a perceived lack of reward and general feelings of inequity, knowledge of the individual reward systems that can offset the negative impact of job-related efforts on wellbeing cannot be gained. Accordingly, the present study examines the main and interactive effects of job-related efforts and the three reward components individually, together with the role played by over-commitment, in predicting each of the wellbeing outcomes in a sample of academics working in UK universities.

Method

Participants

Data were collected via an online questionnaire. Invitations to participate were sent to 2,400 academics and 649 responded. All respondents worked on a full-time basis in teaching and research roles in UK universities. Fifty-eight per cent of the sample was male and the majority (79 per cent) was at least 41 years of age. The majority of the sample (70 per cent) had been employed in HE for more than 9 years, with 36 per cent having worked in the sector for 20 years or more. The demographic characteristics of the sample corresponded with the wider population of academics in the UK at the time the data were collected (HESA, 2014) whereby 55 per cent of academic staff was male with most being 41 years or more.

Measures

Background information was obtained, including age, gender and length of time employed in HE.

Effort-reward imbalance.

Scales from ERI questionnaire (Siegrist, 2004) were used to measure *effort, financial, esteem and security rewards, and overcommitment*. A five-item measure of effort was used e.g. "I have constant time pressure due to a heavy workload." Ten items measured rewards related to the three dimensions: finance/status, esteem/support, and job security: e.g. "Considering all my efforts and achievements, my job promotion prospects are adequate." and, "My job security is poor". Over-commitment was measured with six items: e.g. "People close to me say I sacrifice too much for my job." All five scales were rated on a five-point scale where 1 = "strongly disagree" and 5 = "strongly agree". Higher scores on each scale represented more efforts, rewards and overcommitment. Cronbach's alphas: efforts = .82; finance/status = .82; esteem/support = .81; job security = .79; overcommitment = .87.

Mental health

The General Health Questionnaire (GHQ-12) (Goldberg & Williams, 1988) was used to measure symptoms of depression, anxiety and cognitive difficulties. This is a widely-used screening device for identifying non-psychotic and minor psychiatric disorders. An example of an item is: "Have you recently been able to enjoy your normal day to day activities?" where responses are requested on a four-point scale ranging from 0 "much less than usual" to 3 = "more so than usual." Higher scores represent poorer mental health. Cronbach's alpha = .92.

Job satisfaction

Warr, Cook, & Wall's (1979) seven-item measure of intrinsic job satisfaction was utilised. Items assessed satisfaction with aspects of the job itself (such as freedom to choose method of working and the opportunity to use abilities). Responses were invited on a seven-point scale ranging from 1 = "I'm extremely dissatisfied" to 7 = "I'm extremely satisfied." Higher scores denoted higher levels of job satisfaction. Cronbach's alpha = .87

Leaving intentions

A single item adapted from Robinson (1996) assessed respondents' intentions to leave their current institution: "If I have my way, I will have left this organisation in three years from now". Responses were obtained on a six-point scale ranging from 1 = "Strongly disagree" to 6 = "Strongly agree" with higher scores denoting stronger intentions to leave their current employment.

Analysis

Several predictions are derived from the ERI model (Siegrist, 1996):

1. Higher efforts and lower rewards will be related to greater strain (i.e. mental health problems, lack of job satisfaction and leaving intentions);
2. Efforts and rewards will have an interactive effect on strain;
3. Higher levels of over-commitment will be related to greater strain;
4. Higher over-commitment increases the risk of strain (i.e., an additive
5. effect of over-commitment);
6. Efforts and rewards in combination with over-commitment pose the greatest risk to employee well-being.

Different methods have been used to test the predictions of the ERI model. Epidemiological research typically uses an effort-reward ratio to determine the presence or absence of a high effort-low reward condition and identify the risk of disease (e.g. Peter, Geissler, & Siegrist, 1998). The risks of dichotomising continuous variables and using arbitrary cut-off points have been highlighted, however, whereby additive regression models that utilise multiplicative terms are more likely to detect significant main and moderating effects (Van Vegchel et al., 2005). The present study utilises this approach. Hierarchical regression analysis was used to identify the predictors of each of the outcome variables (i.e. mental health problems, job satisfaction and leaving intentions). Sex and age were entered in the first step to control for their potential effects. At step 2, job-related efforts and each of the three reward systems were entered simultaneously to examine their main effects. At step 3, the three two-way interaction terms effort x reward (i.e. finance/status, esteem/support and security) were entered to establish whether any of these systems predicted outcomes over and above the contribution made by efforts and rewards independently. In step 4,

overcommitment was entered to examine its main effects on any of the outcomes. In the fifth and final step, the three-way interaction terms efforts x rewards x overcommitment were entered to assess whether this intensified the risk to wellbeing.

Disclosure Statement

The author has no financial interest, or gained no financial benefits from the direct application of this research.

Results

Correlations between job-related efforts, the three reward systems (promotion/salary, esteem/respect and job security), overcommitment, and each of the outcome variables (mental health, job satisfaction and leaving intentions) are shown in Table 1. As can be seen, significant positive associations were found between job-related efforts and overcommitment and mental health problems and leaving intentions and a negative relationship was observed with job satisfaction. Moreover, each of the reward systems was significantly related to the outcomes in the expected direction, with negative associations observed with mental health problems and leaving intentions and a positive relationship found with job satisfaction. As can be seen particularly strong associations were found between efforts, overcommitment and esteem rewards and mental health symptoms and between efforts and financial and esteem rewards and job satisfaction.

TABLE 1 ABOUT HERE

The main and moderating effects of efforts, overcommitment and the three reward systems were examined. Details are provided in Table 2. The model explained a total of 47 per cent of the variance in mental health symptoms which was accounted for by the main effects of efforts, esteem/support rewards and overcommitment. Some evidence was found for a two-way interaction between efforts and esteem rewards and a three-way interaction between efforts, financial/status rewards and overcommitment in predicting mental health status but the contribution to the variance was minimal. These findings suggest that esteem rewards may protect academics from the negative impact of job effort on mental health and that the relationship between efforts and mental health is exacerbated for those who are overcommitted to the job role and who perceive fewer financial and status rewards in compensation.

In terms of job satisfaction, the main effects of efforts and rewards explained 67 per cent of the variance with each of the three reward systems making a similar contribution. A two-way interaction between efforts and finance/status and esteem rewards contributed to the variance, suggesting that rewards from this source may attenuate the negative impact of efforts on job satisfaction. No significant main effects were observed for overcommitment security rewards or for any of the three-way interactions in predicting job satisfaction. Finally, age, efforts and esteem rewards together with a two-way interaction between efforts and finance/status explained a total of 17 per cent of the variance in leaving intentions. This suggests that esteem, pay and status may protect academics from the damaging effects of efforts on continuance.

TABLE 2 ABOUT HERE.

Discussion

This study has provided further insight into the work-related wellbeing of academics. Evidence was found that the ERI model is a useful framework through which to examine the work stress process in academic employees and has potential to shape interventions to improve their health and satisfaction and encourage them to remain with their current employer. Highlighting the negative impact of the intensification and diversification of academic work, support was found for an additive ERI model, where academics who found their work more effortful tended to report poorer mental health, less job satisfaction and were less likely to wish to remain working for their institution. Perceptions of reward also made a strong contribution to these outcomes. Nonetheless, the value of examining the three facets of reward independently was confirmed, as each system had a unique pattern of effects in predicting mental health problems, satisfaction and leaving intentions.

In accordance with the principles of the ERI model (Siegrist, 1996), the belief that one's efforts at work are counterbalanced by an appropriate level of reward seems critical for the health and happiness of academics, whereas a lack of equity is clearly detrimental to wellbeing. Evidence was found that over-commitment is an independent risk factor for wellbeing in academic working environments, as excessive involvement in the job role and a reluctance to disengage from it can threaten mental health and may compound the negative effects of high effort/low reward conditions. This supports previous research that has found high levels of job involvement in academic employees (Hogan et al., 2014) and highlights the negative implications the implications for work-life balance and recovery.

The ERI model explained a considerable proportion of the variance in academics' mental health and job satisfaction, but was a less powerful predictor of their intentions to leave their current employer. Research conducted in several countries has found unusually high levels of self-reported mental health problems among academics (e.g. Kinman & Wray, 2015; Winefield et al., 2008). The present study offers some insight into the factors that might underpin such effects, as academics who found their work to be more onerous and whose expectations for esteem and support were largely met were more likely to report depression, anxiety and impaired memory and concentration. Such symptoms will have wide-ranging effects on employees' quality of life, as well as impairing job performance via reduced cognitive capacity (Lerner & Henke, 2008; Simon et al., 2001). Particularly strong evidence was found for the benefits of perceptions of equity between efforts and esteem rewards, as academics who believed that their hard work was counterbalanced by sufficient esteem, respect and support were less likely to report mental health problems. There was also some evidence that over-commitment might compound the negative impact of high effort and low esteem reward conditions on wellbeing, but the effects were not robust. The importance of esteem rewards to the career progression of academics was also highlighted as it was the most powerful predictor of respondents' intention to leave their current employer.

Insight into the factors that underpin job satisfaction in different occupational groups is crucial. Satisfaction with work is a powerful predictor of health status and has also been strongly related to performance, particularly in jobs characterised by a high level of complexity (Faragher, Cass, & Cooper, 2005; Judge, Thoresen, Bono, & Patton, 2001). The present study indicates that those who find their work less demanding, and who perceive greater gains in relation to pay, support and esteem, tended to be more satisfied. This corresponds with previous research that has highlighted academics' strong drive to gain recognition and respect for their knowledge and expertise (Winter & Sarros, 2002). The importance of support from colleagues and managers for the wellbeing of academic employees has also been previously highlighted (Kinman & Wray, 2015). There is evidence that such support can not only protect health and satisfaction but also improve job performance and strengthen employees' feelings

of commitment to their institution (Mark & Smith, 2012). Some evidence was also found that academics who believed that the efforts they put into their job were not offset by an appropriate level of pay and status are also likely to be less satisfied. Future research should examine the effects of financial and status rewards separately, as they are likely to make a distinct contribution to wellbeing. Moreover, the extent to which the intrinsic satisfaction gained from academic work can compensate for dissatisfaction with more extrinsic characteristics of the job should be explored.

This study found that job security rewards were not significantly related to mental health status, job satisfaction or leaving intentions. This finding is unexpected in the light of increasing redundancies in the sector in many industrialised countries and the strong body of evidence regarding the detrimental effects of job insecurity (Sverke, Hellgren, & Naswall, 2002). It is possible that academics in the UK consider their employment to be comparatively secure under current economic conditions, as work has become more precarious in many sectors. It is likely, however, that job security is less salient for the mental health, satisfaction and retention of academics than esteem and support. In the UK, more than one-third of academics are in temporary employment (HESA, 2013) and the proportion of the workforce that are on fixed-term or casual contracts is growing in many other countries (Gilbert 2013). Future research should consider the relative impact of 'objective' and more 'subjective' types of job insecurity on wellbeing outcomes in the sector.

The ERI model could be used to guide interventions to improve the wellbeing of academics. Creative, evidence-based initiatives are required at the level of the individual, the organisation and the sector. Action research techniques with input from researchers, employees, trade unions and management may be particularly effective in developing and evaluating interventions (Aust, Peter, & Siegrist, 1997). Initiatives that seek to reduce the level and range of demands experienced by academics are likely to be particularly fruitful. The success of such interventions will, however, be dependent upon careful diagnosis of the aspects of the academic role that are most threatening to wellbeing and the setting of realistic priorities for change. It should be acknowledged that the recent intensification and diversification of academic work will limit the scope for reducing demand without considerable investment in staffing. Moreover, the high level of change fatigue highlighted in the sector (Kinman & Wray, 2015) may mean that initiatives would be resisted unless the benefits are clearly identified.

As well as reducing demand, interventions should seek to restore perceptions of equity between efforts expended and rewards received. The findings of this study indicate that esteem and support rewards are critical for the wellbeing of academics. The importance of over-commitment was also highlighted. Evidence was found that individuals who exhibit a pattern of excessive striving at work combined with a strong need to seek esteem and approval may be at particular risk of mental health problems. This suggests that interventions that seek to modify over-commitment are likely to improve the wellbeing of academics, but reducing involvement in work may be challenging in a culture where long hours and intense involvement in the job are normalised. Indeed, it could be argued that academics would be unable to meet the required standard of performance in each facet of their job under current working conditions without a high level of dedication to their work. The difficulties in attempting to reduce over-commitment in a profession where work is central to identity and self esteem should also be considered carefully. The factors inherent in university cultures and individual employees that allow 'healthy' commitment to the profession and the organisation to progress to pathogenic over-commitment to the job should be identified. Nonetheless, while over-involvement in work may have career benefits, an inability to

withdraw from work can intensify the risk of burnout and other serious health problems over the longer term (Bakker, Killmer, Siegrist, & Schaufeli, 2000; Tsusumi & Kawakami, 2004). How over-commitment to work develops in early-career academics should also be explored, as some employees may work excessively hard and be prepared to accept an imbalance between efforts and rewards as an “anticipatory investment” to improve their future work prospects. Although the present study found no evidence that age was related to over-commitment, only 2 per cent of the sample were under 29 and a considerably majority (i.e. 77% were at least 40 years old).

Feeling that one’s efforts are rewarded by appropriate rewards is clearly important to the health and satisfaction of academics. Social comparison theory (Festinger, 1954) maintains that people determine their personal worth from their evaluations of others. Wellbeing may therefore be dependent not only on an individual’s perceptions of balance between the efforts they expend and the rewards they receive, but also on judgements of the equity gained by their colleagues. For example, if an employee believes that their colleagues put less effort into work than them but receive more rewards, the ensuing feelings of injustice may encourage them to reduce their effort and commitment as well as compromise interpersonal relationships at work; thus intensifying the risk of job-related stress.

This study has some limitations that should be acknowledged. It relied on cross-sectional correlational data and the direction of causality cannot be established. Employees’ perceptions of equity between efforts and rewards are not likely to be based on simple judgements of cause and effect, but the result of a dynamic and unfolding process where benefits received influence the amount of effort expended on the job as well as vice versa. Daily diary research might be particularly useful in providing insight into these processes over time. Diaries could also be used to obtain specific examples of situations that invoke feelings of reciprocity between efforts and rewards (or the lack of it) and the role played by overcommitment that might inform interventions that are grounded in the context of academic work.

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Table 1: Descriptive data and correlations between efforts, reward, over-commitment and study outcomes

	Mean (SD)	1	2	3	4	5	6	7	8
1. Efforts	2.56 (0.80)	.00							
2. Finance Rewards	3.60 (1.13)	-.40***	.00						
3. Esteem rewards	3.95 (1.08)	-.47***	.69***	.00					
4. Security rewards	2.89 (1.22)	-.31***	.42***	.40***	.00				
5. Over-commitment	2.80 (0.58)	.50***	-.27***	-.36***	-.24***	.00			
6. Mental ill health	1.23 (0.53)	.55***	-.41***	-.50***	-.26***	.53***	.00		
7. Job satisfaction	4.67 (1.13)	-.39***	.40***	.40***	.34***	-.28***	-.56***	.00	
8. Leaving intentions	3.01 (1.10)	.25***	-.30***	-.32***	-.21***	.25***	.29***	-.37***	.00

One-tailed correlations: ***p < .001.

TABLE 2: HIERARCHICAL REGRESSIONS SHOWING ERI VARIABLES PREDICTING EACH OF THE STUDY OUTCOMES

<i>Predictors</i>	<i>Mental health symptoms</i>	<i>Job satisfaction</i>	<i>Leaving intentions</i>
Gender	.01	.01	.05
Age	.00	.05	-.16***
<i>Step 1 R²</i>	-.00	.00	.04***
Efforts	.42***	-.21***	.10*
Finance/status rewards	-.02	.28***	-.11
Esteem/support rewards	-.23**	.29***	-.18**
Security rewards	-.05	.08	-.07
<i>Step 2 R² change</i>	.36***	.65***	.12***
Efforts X finance/status rewards	.10	-.42**	.33*
Efforts X esteem/support rewards	.32**	.13	.14
Efforts X security rewards	.18	-.22	.20
<i>Step 3 R² change</i>	.03**	.02**	.01*
Over-commitment	.31***	-.06	.06
<i>Step 4 R² change</i>	.07***	.00	.00

Efforts X finance/status rewards X over-commitment	-.33	.08	-.33
Efforts X esteem/support rewards X over-commitment	.65*	-.09	.14
Efforts X security rewards X over-commitment	.12	-.16	-.17
<i>Step 5 R² change</i>	.01	.00	.00
Total R ²	.47	.67	.17

p < .05; **p < .01; ***p < .001.