

Perceived Stress amongst University Academics

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Abstract

The object of this study is to explore academic stress amongst academics (those who are employed by full/ part time, hourly paid, and who may be lecturers/ tutors/ instructors/ researchers) working for a university in different countries around the world. 533 (100%) academics participated in an online questionnaire/ survey. 244 (45.8%) were male with a mean age of 48.78 (SD = 10.9); and 54.2% (N = 289) were female with a mean age of 47.29 (SD = 9.78). The minimum age of participants was 24 and the maximum was 78 (Mean: 47.99; SD: 10.32). The participants responded to the perceived stress scale (PSS) (Cohen et al, 1983) and findings are discussed.

Keywords: Stress, academics, universities, well-being.

1. Introduction

The findings of studies undertaken by researchers show that university staff experience high workload demands and long hours (For example: Early 1994; Doyle and Hind, 1998 and Tytherleigh et al 2005). Further, there has been increased pressure where public funding of universities has been reduced. The higher the workload demands the greater the stress on staff (Dua, 1994; Hogan et al, 2002; Winefield and Jarrett, 2001). This includes: undertaking academic and pastoral counselling; undertaking administrative duties; and being a technological specialist. These are duties and responsibilities that in the past may have been undertaken by support or other staff members. The increased demands placed upon academics can therefore affect job performance and well-being (Kearns and Gardiner, 2007).

2. Background

Tytherleigh et al (2005) explain that stress in university staff appears widespread. This is supported by Millward-Brown (1996) who carried out a survey of the professional workforce in the UK which showed that over 50% of academics and researchers felt that their jobs caused them stress all or most of the time. 58% of those who responded considered that management was the reason for stress, when compared to 47% (average) for 20 occupational groups that had been surveyed. On average, and on a daily basis, 20% of those in higher education considered leaving their jobs and a further 20% felt like leaving once a week. As Tapper (1998) points out there appears to be a move from a collegiate culture of cooperation and shared values towards the business/ industrial approach that includes a bureaucratic and non-participate style of management which could lead deskilling and de professionalisation (Trow, 1993) and as a consequence lead to increased stress, lower moral, and crisis of professional identity (Sarros et al, 1998). In their study, Jackson and Hayday (1997) found that participants felt that management were remote and bureaucratic that included poor communication.

The Health and Safety Executive (HSE) (2014) advise that in 2013/14, 39% of work related illness were associated with work related anxiety, depression, and stress which has remained at a similar percentage for more than a decade with each case resulting in 23 days being lost each year. The HSE (2014) reports that the age group 45 to 54 had the highest stress related illness for age groups.

Kinman and Wray (2013) found that approximately 75% of academics agreed/ strongly agreed that “I find my job stressful” and this had increased significantly since 1998. Johnson et al (2005) points out that teaching is a stressful occupation. Research undertaken, in one university in the UK (Wales), by Abouserie (1996) found that approximately 75% (414) university (414) lecturers felt that work was the main cause of stress.

ComRes (2015) carried out a survey on behalf of the National Association of Schoolmasters Union of Women Teachers (NASUWT) and found that 61% of participants were often or always stressed and 47% were seriously considering leaving the teaching profession. A survey carried out by YouGov (2015) on behalf of the National Union of Teachers (NUT) also found that 53% were considering leaving the teaching profession in the next two years. The challenge with working in academia is that it appears that work is never ending (Wortman et al, 1991), and that the demands on academics may involve competing demands (Fisher, 1994) that may lead to internal conflict, pressure and stress. Mwangi (2014) points out that there is increasing competition together with challenges of recruiting and then retaining qualified staff. She adds that there are increased demands on funding. Furthermore, the nature of the work undertaken by academics can lead to blurring of boundaries both professionally and personal (Austin and Pilat, 2000).

Robbins and Judge (2013) refer to stress as an unpleasant psychological process that may happen as a response to environmental pressures. Walsh (2011:145) in Hutchison et al describes a stressor as “any biological process, emotion or thought”. It is the outcomes of demands on the body during experiences of fight or flight. It is the body’s attempt to maintain homeostasis/ physical equilibrium (Selye, 1956; 1976a; 1976b). Teaching is identified as being one of the most stressful occupations that is associated with well-being (Halim et al, 2006; Kinman and Jones, 2004; Johnson et al, 2005; Papastilianou et al, 2009; Thabo, 2010). This is highlighted by Kinman et al (2006) in which they state that between 1998 and 2004 working conditions had not significantly improved for academics. This can impact upon the student experience and productivity (Wilke et al, 1984) with people seeking to leave teaching (Lambert and McCarthy, 2007).

Thoits (2010) points out that stressors can have substantial damaging effect on mental and physical health. However, as described by Kinman (1998) stress is unavoidable in a person’s life whether this is associated with their personal or work life. Differentiation can be made between chronic stress and simply being under pressure. Chronic stress can lead to physical health problems (including: high blood pressure, headaches and exhaustion) and psychological problems (including: anxiety, low self-esteem and depression). Cohen et al (2007) suggest that experiencing chronic stress can result in people having difficulties with cognition (thinking) and behaviour. For example Bodenmann et al (2010) found a relationship between stress and conflict/ aggression. Further research carried out by Johnson et al (2002) suggest that stress is linked to health outcomes (for example: asthma, arthritis, cancer, diabetes, heart disease). Schneiderman et al (2005) goes further linking stress with ill health and also death (for example: cancer, liver/ heart disease, and lung ailments) suicide. Stress can also lead to mental illness including depression (Schwabe and Wolf, 2010; Wang, 2005).

Lazarus (2000) defines the term stress as being complex and multidimensional negative emotion. Coping with stress can lead to the reduction of demands (internal and external); responding to potential threats (Latack, 1986). Latack (1986) continues by explaining the components of dealing with stress. In the first instance 1) the person perceives the threat. 2) They then make a cognitive appraisal to try to understand that causing the stress but at this stage they are still uncertain as to how to respond. 3) The third component is degree, or level, of stress that is experienced. For example: psychophysical symptoms (such as faster heartbeat, sweating, stomach pains) and/ or behaviour (such as temper tantrums). 4) The fourth component that Latack (1986) identifies is the implementation of how to cope with the stressful event/ threat. The research carried out by Latack (1986) appears to focus on control strategy and escape strategy (Taylor et al, 2007 in Zelic). It does however; identify the control of stressful events using cognitive strategy and actions.

Krohne (2002) takes the explanation of stress a little further. He states that external demands (stressors) and that experienced by the body (stress) can be placed into two categories. The first is systematic stress (for example: Selye 1976c) that is associated with physiological or psychobiology factors. The second is psychological stress that is associated with cognitive psychology (for example: Lazarus 1966, 1991, Lazarus and Folkman 1984). This is summarised in the table 1. The implications of stress on the person and organisation they work for can have long lasting consequences. For example, a person may find they are unable to work again. They may find that they experience long term physical and health problems as well as mental difficulties. This in turn could affect possible work opportunities in the future.

Examples of this include research on students undertaking exams (Folkman and Lazarus, 1985); those experiencing breast cancer (Carver et al, 1993) and eating disorders (Greene and Wing, 1994). As described by Fay and Sonnentag (2002), a person experiencing stress can lead to initiative taking; to enable them to meet the demands of their job. It can also lead to improved memory (Cahill et al, 2003). Hancock and Weaver (2005) add that a person places additional resources on the stressful experience and can increase the speed by which a person processes information. Whereas stress can lead to panic or anxiety if a person directs their anticipatory action processes correctly the response to stress can be beneficial putting the person's body and brain in an optimal position to perform a task or face a situation (Crum et al, 2013). For example, it can enhance immunity (Dienstbier, 1989) and can change a person for the better (Crum et al, 2013). Whereas a person may feel distress it can result in stress related growth where stressful experiences can enhance a person's heightened awareness, deeper relationships, greater sense of meaningfulness and a greater appreciation of life (Park and Helgeson, 2006). Crum et al (2013) point out that it is important to identify the mind-set of a person identifying if they have a "stress-is enhancing" (p.717) mind-set or "stress is debilitating" (p.717) mind-set. Adopting a particular mind-set could, therefore, influence the behavioural, psychological, and physiological outcomes. Notwithstanding the mind-set and the reliance of a person to withstand particular stressful experiences, there is a critical point where the stress can become debilitating (Alpert and Haber, 1960).

3. Methodology

Gosling and Johnson (2010) state that the internet, including social media, is providing a revolution in the approach psychologists undertake behavioural research. They go on to explain that the advantages of undertaking research on line will likely lead to the researcher reaching a larger number of people and a more diverse group. To try and maximise the participation in the research social media was used enabling academics to be contacted around the world that may not have been possible using other means.

3,900 academics were initially contacted via LinkedIn who were then asked to complete an online questionnaire/survey (Bristol Online Services- BOS) between the 16th October and the 4th December 2014. Academics were asked as to how they felt with regards to perceived stress (Perceived stress scale –Cohen et al, 1983). Participation was voluntary and anonymity maintained. SPSS (Statistical Package for the Social Sciences) was used to analyse the data which was protected on a personal computer by username and password. A total of 543 participants took part in the questionnaire/ survey of which 6 confirmed they were students and a further 4 advised they held administrative roles. These were therefore removed from the data set leaving a sample size of 533. 244 (45.8%) were male with an average age of 48.78 (SD: 10.9); 289 (54.2%) were female with an average age of 47.29 (SD: 9.78). The ages ranged from 24 to 78 (mean 47.99; SD: 10.32). Cronbach alpha coefficient should be above 0.7 (DeVellis, 2012) preferably above 0.8 (Pallant, 2013). Internal consistency was assessed and Cronbach alpha was shown to be 0.81, over the 14 items, therefore suggesting good internal consistency.

The PSS includes 14 items that assesses factors associated with psychological stress that participants experienced over the previous month. Responses ranged from 1 (never) to 5 (very often). Higher scores suggest greater stress. The findings are shown in table 2. Participants were asked to respond Cohen et al (1983) PSS questionnaire. 24% responded "never" to item 6 "In the last month how often have you felt confident about your own ability to handle your personal problems." A further 47% stated "almost never." (a total of 73%). This suggests that the majority of participants did not feel confident about their own ability to handle personal problems. This does appear very high and anomalous. This is a reverse item and checks were made to make sure that it had been reversed. It does appear correct.

Item 12 asked "in the last month, how often have you found yourself thinking about things that you have to accomplish". 47% responded very often and 32% said fairly often (a total of 79%). Considering the demanding nature of the role of the academic where they may have pastoral roles, lecturers/ seminars/ academic papers/ conferences to prepare for together with marking this percentage is unsurprising.

4. Summing up

Kinman and Wray (2013:44) comment that "Stress remains a serious concern in higher education" and this is supported by other researchers that those working as an academic at university level are experiencing increased stress levels (Blix et al, 1994; Boyd and Wylie, 1994; Gillespie et al, 2001; Kinman, 2008, 2010, 2014; McInnis, 1999).

Stress does not appear to have declined in the teaching environment and is an important factor for organisations and individuals to develop constructive ways to cope effectively and to protect the feelings of well-being. Whereas research has been undertaken with students, very little research has been undertaken with respect to academics within higher education (universities) (Woods, 2010); in particular how they cope emotionally with interpersonal relationships in challenging situations and the affect it may have on their well-being. Being able to cope with challenging experiences is, therefore, an important factor as academics are fundamental to the success of universities and to student experience. Further research is recommended.

Tables

Table 1.

Types of stress

No	Category	Associated with	Examples of researchers
1	Systematic stress	Physiological psychobiology	or Selye, (1976c).
2	Psychological stress	Cognitive psychology	Lazarus, (1966; 1991); Lazarus and Folkman, (1984).

Source: Krohne (2002)

Table 2						
Cohen et al (1983) Perceived stress scale (PSS) (Responses)						
No	Item	1	2	3	4	5
	Item (R= reversed item)	Never	Almost never	Sometimes	Fairly often	Very often
1	In the last month, how often have you been upset because of something that happened unexpectedly?	11%	25%	39%	14%	10%
2	In the last month, how often have you felt that you were unable to control the important things in your life?	14%	28%	30%	19%	8%
3	In the last month, how often have you felt nervous and "stressed"?	6%	19%	33%	29%	14%
4	(R) In the last month, how often have you dealt successfully with life hassles?	22%	49%	23%	6%	1%
5	(R) In the last month, how often have you felt you were effectively coping with important changes that were occurring in your life?	19%	49%	25%	7%	2%
6	(R) In the last month, how often have you felt confident about your own ability to handle your personal problems?	24%	47%	25%	5%	1%
7	(R) In the last month, how often have you felt things going your way?	10%	42%	36%	11%	2%
8	In the last month, how often have you found that you could not cope with all the things that you had to do?	14%	30%	28%	19%	9%
9	(R) In the last month, how often have you been able to control irritations in your life?	10%	41%	35%	11%	3%
10	(R) In the last month, how often have you felt that you were on top of things?	10%	36%	33%	16%	5%
11	In the last month, how often have you been angered because of things that happened that were outside of your control?	9%	31%	33%	17%	10%
12	In the last month how often have you found yourself thinking about things that you have to accomplish?	1%	5%	16%	32%	47%
13	In the last month how often have you been able to control the way you spend your time?	4%	15%	31%	40%	11%
14	In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?	21%	31%	27%	14%	6%

References

- Abouserie, R. (1996). Stress coping strategies and job satisfaction in university academic staff. . Educational Psychology. 16 (1). 49-56.
- Alpert, R. & Haber, R. N. (1960). Anxiety in academic achievement situations. The Journal of Abnormal Social Psychology. 61 (2), 207-215.
- Austin, A. & Pilat, M. (2000). Tension, stress, and the tapestry of faculty lives. Academe. January/ February. 38-42.
- Blix, A.G. Cruise, R.J. Mitchell, B.M & Blix G.G. (1994). Occupational stress among university teachers. Educational Research. 36, 157-169.
- Bodenmann, G. Meuwly, N. Bradbury, T.N. Gmelch, S. & Ledermann, T. (2010). Stress, anger, and verbal aggression in intimate relationships: Moderating effects of individual and dyadic coping. *Journal of Social and Personal Relationships*. 27, 408-424.
- B.O.S. (2014). Bristol Online Services. (Online). Available: <https://www.survey.bris.ac.uk/?surveyid=171094&op=results>. (April 4, 2014).
- Boyd, S.& Wylie, C. (1994). Workload and stress in New Zealand Universities. Wellington: New Zealand Council for Educational Research/ Association of University staff of New Zealand.
- Cahill, L. Gorski, L. & Le, K. (2003). Enhanced human memory consolidation with post learning stress: Interaction with the degree of arousal at encoding. Learning and Memory. 10, 270.
- Cohen, S. Janicki-Deverts, D. & Miller, G.E. (2007). Psychological stress and disease. Journal of the American Medical Association. 298 (14), 1684-1687.
- Cohen, S. Kamarck, T. & Mermelstein, R. (1983). A global measure of perceived stress. Journal of Health and Social Behaviour. 24, 385-396.
- ComRes (2015). Teachers' satisfaction and wellbeing in the work place: NASUWT. The Teacher's Union. (Online). Available: http://www.nasuwt.org.uk/consum/groups/public/@press/documents/nas_download/nasuwt_011847.pdf. (October 10, 2015).
- Crum, A. J. Salovey, P. & Anchor, S. (2013). Rethinking Stress: The role of mindsets in determining the stress response. Journal of Personality and Social Psychology. 104 (4),716-733.
- Dienstbier, R.A. (1989). Arousal and physiological toughness: Implications for mental and physical health, Psychological Review. 96,. 84-100.
- Doyle, C. & Hind, P. (1998). Occupational stress, burnout and job status in female academics, Gender, work and organisations. 5, 67-8.
- DeVellis, R.F. (2012). Scale development; theory and application (3rd ed). Thousand Oakes, California, Sage.
- Dua, J. K. (1994). Job stressors and their effects on physical health, emotional health and job satisfaction in a university. Journal of educational administration. Journal of Educational Administration. 32 (1).
- Early, P. (1994). Lecturers' work load and factors affecting stress levels. Slough: NFER.
- Fay, D. & Sonnentag, S. (2002). Rethinking the effects of stressors: A longitudinal study on personal initiative. Journal of Occupational Health Psychology. 7. 221-234.
- Fisher, S. (1994). Stress in academic life: The mental assembly line. Buckingham: Open University Press.
- Folkman, S. & Lazarus, R. S. (1985). If it changes it must be a process: A study of emotion and coping during three stages of a college examination. Journal of Personality and Social Psychology. Vol. 48, 150-170.
- Gillespie, N.A. Walsh, M. Winefield, A.H. Dua, J. & Stough, C. (2001). Occupational stress in universities: Staff perceptions of the causes, consequences and moderators of stress." Work and Stress. 15 (1), 53-72.
- Gosling, S. D. & Johnson, J.A. (2010). Advanced methods for conducting: Online behavioural research. American Psychology Association.
- Greene, C.G. & Wing, R.R. (1994). Stress induced eating. Psychological Bulletin. 115. 444-464.
- Halim, L. Samsudin, M.A. Subahan, T. & Meerah, M.(2006). Measuring science teachers' stress level triggered by multiple stressful conditions. *Journal of Science and Mathematical Education*. 4. 727-739.
- Hancock, P. A. & Weaver, J. L. (2005). On time distortion under stress. Theoretical Issues in Ergonomics Science. 6. 193-211.
- Hogan, J.M. Carlson, J.G. & Dua, J. (2002). Stressors and stress reactions among university personnel. International Journal of Stress Management. 9, 289-310.

- Health and Safety Executive (HSE, 2014). (Online). Available: <http://www.hse.gov.uk/Statistics/causdis/stress/index.htm>. (January 17, 2015).
- Jackson, C. & Hayday, S. (1997). Staff attitudes at the University of central Lancashire: Brighton: Institution for Employment Studies.
- Johnson, S. Cooper, C. L. Cartwright, S. Donald, T. Taylor, P. & Millet, C. (2005). The experience of work related stress across occupations. *Journal of Managerial Psychology*. 20 (2), 179-187.
- Johnson, S. B. Perry, N. W. & Rosensky, R. H. (2002). Handbook of clinical health psychology: Medical disorder and behavioural applications. Washington. DC. American Psychological Association.
- Kearns, H. & Gardiner, M. (2007). Is it time well spent? The relationship between time management behaviours, perceived effectiveness and work related morale and distress in a university context. *Higher Education Research and Development*. 26 (2), 235-247.
- Kinman, G. (1998). Pressure points: A survey into the causes and consequences of occupational stress in UK academic and related staff. London: Association of University Teachers.
- Kinman, G. (2008). Work stressors, health and sense of cohesion in UK academic employees. *Educational Psychology*. 28 (7), 823-835.
- Kinman, G. (2010). Psychosocial hazards in UK universities: Adopting a risk assessment approach. *Higher Education Quarterly*. 64 (4), 413-428.
- Kinman, G. (2014). Doing more with less? Work and wellbeing in academics. *Somatechnics*. 4 (2), 219-235.
- Kinman, G. & Jones, F. (2004). Working to the limit: Stress and work-life balance in academic related employees in the UK. The Higher Education Union. (Aut). Association of University Teachers.
- Kinman, G. Jones, F. & Kinman, R. (2006). The well-being of the UK academy. 1998-2004. *Quality in higher education*. 12. (1). 15-27.
- Kinman, G. & Wray, S. (2013). Higher Stress: A Survey of Stress and Wellbeing among Staff in Higher Education. UCU. (Online). Available: http://www.ucu.org.uk/media/pdf/4/5/HE_stress_report_July_2013.pdf (June 14, 2015).
- Krohne, H.W. (2002). Stress and Coping Theories, Johannes Gutenberg-Universitat Mainz Germany.
- Lambert, R. & McCarthy, C. (Eds) (2007). Understanding Teacher Stress in an Age of Accountability. Information Age Publishing: Charlotte.
- Latack, J. C. (1986). Coping with job stress: Measures and future directions for scale development. *Journal of Applied Psychology*. 71 (3). 377-385.
- Lazarus, R. S. (1966). Psychological stress and the coping process. New York: McGraw-Hill.
- Lazarus R.S. (1991). Emotion and adaption. Oxford: Oxford University Press.
- Lazarus, R.S. (2000). Towards better research on stress and coping. *American Psychologist*. 55 (6). 665-673.
- McInnis, C. (1999). Change and diversity in work patterns of Australian academics. *Higher education management*. 105-117.
- Millward-Brown. (1996). Powerful people: A survey of Britain's professional workforce. London: Guardian Publishing.
- Mwangi, C.I. (2014). Emotional intelligence influence on employee engagement sustainability in Kenyan public universities. *International Journal of Academic Research in Public Policy Governance*. 1. (1).
- Pallant, J. (2013). SPSS survival manual: A step by step guide to data analysis using IBM SPSS (5th ed), McGraw Hill.
- Papastylianou, A. Kaila, M. and Polychronopoulos, (2009). Teachers' burnout, depression, role ambiguity and conflict. *Social Psychology of Education*. 12. 295-314.
- Park, C. L. & Helgeson, V.S. (2006). Introduction to the special section: Growth following highly stressful life events- Current status and future directions. *Journal of Consulting and Clinical Psychology*. 74, 791-796.
- Robbins, S. P. & Judge, T. A. (2013). *Organisational Behaviour*, (15th Ed). Pearson.
- Sarros, J. C. Gmelch, W.H. & Tanewski, G.A. (1998). The academic dean. *Higher Education Research and Development*. 17 (1), 65-88.
- Schneiderman, N. Ironson, G. & Siegel, S.D. (2005). Stress and health: Psychological, behavioural and biological determinants. *Annual Review of Clinical Psychology*. 1, 607-628.
- Schwabe, L. & Wolfe, O.T. (2010). Learning under stress impairs memory formation. *Neurobiology of Learning and Memory*. 93 (2), 183 -188.
- Selye, H. (1956). *The Stress of Life*, London, Longmans, Green and Co.

- Selye, H. (1976a). Forty years of stress research: principal remaining problems and misconceptions, *CMA Journal*, Vol. 115. (53-56).
- Selye, H. (1976b). *Stress in health and disease*, Butterworths, Boston.
- Selye, H. (1976c). *The Stress of Life*, New York: McGraw-Hill.
- Tapper, T. (1998). Continuity and change in the collegial tradition. *Higher Education Quarterly*. 52. 142-161.
- Taylor, A. Bianco, J.A. Thacker, R. A. & Thomas, E. A. (2007). Managerial coping with organisation change: The role of motivation. In P.A. Zelick. *Issues in the psychology of motivation*. Nova Science Publishers, Inc. 187-202.
- Thabo, F. (2010). Occupational stress among university employees in Botswana. *European Journal of Social Sciences*. 15. (3), 313.
- Thoits, P. (2010). Stress and Health: Major findings and policy implications. *Journal of Health and Social Behaviour*. 51, 41-53.
- Trow, M. (1993). *Managerialism and the Academic Profession*. Paper presented at The Quality Debate Conference. Open University. UK.
- Tytherleigh, M.Y. Webb, C. Copper, C.L. & Ricketts C. (2005). Occupational stress in UK higher education institutions: a comparative study of all staff categories, *Higher Education Research and Development*. 24 (1), 41-61).
- Walsh, J. (2011). The psychosocial person. In E.D. Hutchison and contributors (4th ed). *Dimensions of Human Behavior; Person and environment*. Sage.
- Wang, J. (2005). Work stress as a risk factor for major depressive episode(s). *Psychological Medicine*. 35, 865-871.
- Wilke, P.K. Gmelch, W.H. & Lovrich, N.P. (1984). Stress and productivity: Evidence of the inverted U function in a national study of university faculty. Paper presented at the American Association for the Study of Higher Education Conference. San Francisco.
- Winefield, A.H. & Jarrett, R.J. (2001). Occupational stress in university staff. *International Journal of Stress Management*. 8, 285-298.
- Woods, C. (2010) Employee wellbeing in the higher education workplace: a role for emotion scholarship. *High Education*. 60. 171-185.
- Wortman, C. Biernat, M. & Lang, E. (1991). Coping with role overload. In M. Frankenhaeuser, U. Lundberg, and M. Chesney (Eds). *Women, work, and health: Stress and Opportunities*. London: Plenum.
- YouGov (2015). (Online). Available: <https://www.teachers.org.uk/node/24849>. (October 11, 2015).