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Managing Workplace Stress for Increased Performance in an Irish Higher Education Institution

Tommy J. Foy
Walden University

Walden University

College of Management and Technology

This is to certify that the doctoral study by

Tommy Foy

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Review Committee
Dr. Romuel Nafarrete, Committee Chairperson, Doctor of Business Administration Faculty

Dr. Mohamad Hammoud, Committee Member, Doctor of Business Administration Faculty

Dr. Jill Murray, University Reviewer, Doctor of Business Administration Faculty

Chief Academic Officer
Eric Riedel, Ph.D.

Walden University
2015

Abstract

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MBS, University of Limerick, 2004

BA, Institute of Public Administration, 1998

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Business Administration

Walden University

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Abstract

Workplace stress costs £3.7 billion per annum in the United Kingdom and in excess of $300 billion per annum in the United States. However, little research exists on the relationships between perceptions of social support, work–life conflict, job performance, and workplace stress. The purpose of this correlational study was to provide educational leaders with the information they need to examine the existence, strength, and direction of relationships between perceptions of social support, work–life conflict, job performance, and workplace stress in an Irish higher education institution. The theoretical framework for this study consisted of a combination of reward imbalance theory, expectancy theory, and equity theory. The study included an organizational stress screening survey instrument to survey the population (N = 1,420) of academic, research, and support staff. Multiple linear regression analysis was used to evaluate the relationships between the independent variables (social support, work–life conflict, job performance), the covariates (staff category, direct reports, age, gender), and the dependent variable (workplace stress). The results showed a negative correlation between social support and workplace stress, a positive correlation between work–life conflict and workplace stress, and a negative correlation between job performance and workplace stress ($p < .05$). The results also revealed significant relationships between the covariates direct reports and gender and the dependent variable workplace stress. By reviewing the findings of this study, educational leaders can enable social change by developing and implementing social support, work–life strategies, and potential pathways to reduce levels of workplace stress and improve quality of life for employees and their families.

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Dedication

I dedicate this doctoral study to my wife, Margaret, and sons, Bryan, Kevin, and David.

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I want to thank all the staff of Walden University for their encouragement and dedication throughout the Doctor of Business Administration program. It would not have been possible to undertake the doctoral study without their guidance and support. I would like to thank my doctoral team, which consisted of Dr. Romuel Nafarrete, Dr. Mohamad Saleh Hammoud, Dr. Jill Murray, and Dr. Al Endres. A special thanks to Dr. Romuel Nafarrete, who guided and supported me through the doctoral study, and Ms. Gráinne O'Donovan, APA editor. Finally, I want to thank my family, friends, and work colleagues for their ongoing support.

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Section 1: Foundation of the Study

Background of the Problem

Since 1980, human resources (HR) practitioners, occupational health physicians, professionals, and managers in many types of organizations have placed a significant focus on workplace stress because of the effects it has on productivity (Biron & Karanika-Murray, 2014; Gachter, Savage, & Torgler, 2011; Kossek, Pichler, Bodner, & Hammer, 2011; Pridgeon & Whitehead, 2013). Globalization, innovation in technology, increased competition, work intensification, and workforce diversification have all led to increased pressure and stress in the workplace (Kalliath & Kalliath, 2012).

Workplace stress has increased continually since the mid-1980s and creates a significant burden for organizations through direct and indirect costs such as (a) lost workdays, (b) lower productivity, (c) high turnover rates, (d) increased staffing, and (e) health benefit costs (Walinga & Rowe, 2013). Workplace stress in the United Kingdom costs employers £3.7 billion per annum; in the United States, the cost exceeds $300 billion per annum (Spurgeon, Mazelan, & Barwell, 2012). Organizational leaders must intervene to (a) ensure a healthy workforce, (b) increase productivity, (c) remove inefficiencies, (d) lower costs, and (e) encourage behaviors that will contribute positively to the social-psychological environment of the workplace (Karam, 2011). Although researchers have examined a number of issues that give rise to workplace stress, social support and work–life conflict and their impact on workplace stress have remained an underdeveloped topic (Fernandes & Tewari, 2012; Jain, Giga, & Cooper, 2013; Kossek, Pichler, et al., 2011; Pridgeon & Whitehead, 2013).

Problem Statement

In 2012, 95 million Americans acquired antistress medications (Nasr, 2012). In the United Kingdom, employers lose 9.1 million workdays each year, at a cost of £3.7 billion, because of workplace stress, and in the United States, the cost of workplace stress exceeds $300 billion per annum (Spurgeon et al., 2012). The general business problem is that excessive workplace stress results in (a) lower productivity, (b) increased costs, and (c) lower profits (Avey, Luthans, Hannah, Sweetman, & Peterson, 2012; Bucurean & Costin, 2011; Burton, Hoobler, & Scheuer, 2012; K. Leung, Huang, Su, & Lu, 2011; Sinha & Subramanian, 2012). The specific business problem is that some educational leaders do not have sufficient information about the relationships between social support, work–life conflict, job performance, and workplace stress to address the potential consequences for productivity, costs, and profits (Ipsen & Jensen, 2012; P. Wang, Walumbwa, Wang, & Aryee, 2013).

Purpose Statement

The purpose of this quantitative correlational study was to provide educational leaders with the information they need to examine and understand the relationships between perceptions of social support, work–life conflict, job performance (independent variables), and workplace stress (dependent variable) while controlling for staff category, direct reports, age, and gender (covariates) in a higher education institution (HEI) in Limerick, Ireland. I identified the stress profiles of various staff groups and, subsequently, determined whether different staff groups have different perceptions of social support, work–life conflict, job performance, and workplace stress. I conducted a

multiple regression analysis using three independent variables, four covariates, and the dependent variable.

The results from this study may provide leaders with additional information and an understanding of the relationships between social support, work–life conflict, job performance, and workplace stress. This knowledge should enable leaders to put in place mechanisms to reduce work-related stress, which could preserve scarce financial resources and improve organizational performance (Burton et al., 2012; Nasr, 2012; Spurgeon et al., 2012). The study could promote positive social change by contributing to a reduction in employees' physical ill health and to improvement in their psychological well-being (Walinga & Rowe, 2013).

Nature of the Study

I reviewed the quantitative, qualitative, and mixed methods research methodologies before deciding on a quantitative correlational design. A quantitative research method is suitable for examining the relationships among variables that explain, predict, or control a phenomenon (Lugtig, Boeije, & Lensvelt-Mulders, 2012). Qualitative methodologies are not appropriate for examining variables and covariates (Bernard & Bernard, 2012). Researchers use qualitative methods to answer questions of *how* and *what* when exploring a research topic (Howitt & Cramer, 2011). Mixed methods encompass both qualitative and quantitative methodologies. I did not select a mixed methods approach because the qualitative aspects would not have been appropriate for examining variables and covariates (Bernard & Bernard, 2012). Before deciding on a correlational design for this research project, I examined a number of research designs,

including (a) quantitative descriptive research, (b) experimental research, (c) causal-comparative research, and (d) correlational research.

In the Section 2 subsections on research method and design, I discuss why (a) quantitative descriptive research, (b) experimental research, and (c) causal-comparative research were not appropriate research designs for this study. The challenge for any researcher is to select the design that allows him or her to gain an understanding of the central phenomenon of the study. Selecting the appropriate method and design is critical because an incorrect design will give rise to research findings and conclusions that are not valid.

The quantitative correlational design was the most appropriate approach for examining the identified variables for this study. I used the correlational research design to test for statistical relationships among variables (Bruce, Pope, & Stanistreet, 2013). Correlational research design involves testing null hypotheses to determine if the observed relationships are statistically significant. However, determining a statistical relationship is significant does not mean that one variable causes the other (Bernard & Bernard, 2012). Therefore, a quantitative correlational research design was the most appropriate to (a) analyze relationships between perceptions of social support, work–life conflict, job performance, and workplace stress; (b) assess levels of self-reported stress; and (c) examine the variability of these levels across job and demographic factors.

Research Question

I designed this quantitative correlational study to address the problem statement by answering the following research questions to support or reject the derivative hypotheses:

RQ1: What are the relationships between employees' perceptions of social support, work–life conflict, job performance, and workplace stress while controlling for staff category, direct reports, age, and gender in an Irish HEI?

RQ2: What effects do the different levels of (a) staff category, (b) direct reports, (c) age, and (d) gender have on respondents' perceptions of workplace stress?

Hypotheses

$H1_0$: There are no relationships between employees' perceptions of social support, work–life conflict, job performance, and workplace stress while controlling for staff category, direct reports, age, and gender.

$H1_a$: There are relationships between employees' perceptions of social support, work–life conflict, job performance, and workplace stress while controlling for staff category, direct reports, age, and gender.

$H2_0$: There are no significant effects in respondents' perceptions of workplace stress for the different levels of (a) staff category, (b) direct reports, (c) age, and (d) gender.

$H2_a$: There are significant effects in respondents' perceptions of workplace stress for the different levels of (a) staff category, (b) direct reports, (c) age, and (d) gender.

Survey Questions

The following survey questions are examples taken from An Organizational Stress Screening Tool (ASSET) survey instrument (Appendix A includes the complete list of survey questions):

- Do you work at the University: (Employment basis)

  Question type: demographic Answer type: single

  (0) Full-time permanent (1) Part-time permanent (2) Full-time temporary (3) Part-time temporary

- Are you: (Gender)

  Question type: demographic Answer type: single

  (0) Male (1) Female

- Inspired (Inspired)

  Question type: core Answer type: single

  (0) Very slightly or not at all (1) A little (2) Moderately (3) Quite a bit (4) Very much

- My current job goals are specific (Specific job goals)

  Question type: core Answer type: single

  (0) Strongly Disagree (1) Disagree (2) Slightly Disagree (3) Slightly Agree (4) Agree (5) Strongly Agree

- My job goals and objectives are clear (Clear job goals and objectives)

  Question type: core Answer type: single

  (0) Strongly Disagree (1) Disagree (2) Slightly Disagree (3) Slightly Agree (4) Agree (5) Strongly Agree

- I am troubled that I work longer hours than I choose or want to (Long hours)

  Question type: core Answer type: single

  (0) Strongly Disagree (1) Disagree (2) Slightly Disagree (3) Slightly Agree (4) Agree (5) Strongly Agree

- I am troubled that my performance at work is closely monitored (Work performance closely monitored)

  Question type: core Answer type: single

  (0) Strongly Disagree (1) Disagree (2) Slightly Disagree (3) Slightly Agree (4) Agree (5) Strongly Agree

- I am troubled that I do not receive the support from others (boss/colleagues) that I would like (Support from others)

  Question type: core Answer type: single

  (0) Strongly Disagree (1) Disagree (2) Slightly Disagree (3) Slightly Agree (4) Agree (5) Strongly Agree

- I am troubled that I am given unmanageable workloads (Unmanageable workloads)

  Question type: core Answer type: single

(0) Strongly Disagree (1) Disagree (2) Slightly Disagree (3) Slightly Agree (4) Agree (5) Strongly Agree

- I am troubled that I do not feel I am informed about what is going on in this organization (Lack of information about what is going on in the organization)

  Question type: core Answer type: single

  (0) Strongly Disagree (1) Disagree (2) Slightly Disagree (3) Slightly Agree (4) Agree (5) Strongly Agree

- I am troubled that I have little or no influence over my performance targets (Lack of influence over performance targets)

  Question type: core Answer type: single

  (0) Strongly Disagree (1) Disagree (2) Slightly Disagree (3) Slightly Agree (4) Agree (5) Strongly Agree

- Feeling unable to cope

  Question type: core Answer type: single

  (0) Never (1) Rarely (2) Sometimes (3) Often

- Right now at work I feel confident that I can deal with difficulties when they arise.

  Question type: supplementary Answer type: slider

ASSET has four primary sections and 13 secondary sections. The first three primary sections include questions relating to sources of pressure and stress outcomes. The fourth primary section includes supplementary questions relating to biographical information. From a stylistic point of view, the questions are brief; respondents simply

click on their desired answer, which minimizes the time it takes them to complete the survey.

For this study, the 13 sections of the survey included 165 questions that respondents answered using Likert-type scales (Appendix A includes all 165 survey questions). ASSET differs from typical employee satisfaction or engagement surveys, as the creators designed it to capture employees' personal perceptions of the impact of the workplace situation. ASSET is an in-depth assessment tool that researchers use to gain a better understanding of how workplace factors can influence not only engagement but also positive psychological well-being, resilience, and many of the business-level outcomes that leaders of organizations value, such as productivity and low absence rates.

Theoretical Framework

Researchers develop theoretical frameworks to give structure to the study and guide the selection of appropriate variables and relationships for examination. The theories I selected provided me with a framework in which to examine the relationships between the variables and the covariates of this study. Effort–reward imbalance (ERI) theory, expectancy theory, and equity theory formed the theoretical framework for this quantitative correlational study. Self-regulation is important for health and well-being and is dependent on successful social exchange (Siegrist, 2001). Based on the principles of ERI theory, a lack of reciprocity between costs and gains elicits negative emotions with a propensity to sustained autonomic and neuroendocrine activation (Siegrist, 1996). Therefore, the social reciprocity and social exchange principles that are inherent in ERI theory made this theory appropriate for this study. The expectancy and reward aspects of

ERI tie in with expectancy theory, which also formed part of the theoretical framework of this study.

Vroom (1964) proposed expectancy theory to explain the decision-making process of individuals based on behavioral alternatives. Because expectancy theory is a useful framework for assessing, interpreting, and evaluating employee behavior in relation to attitude formation and decision making (Nasri, 2012), expectancy theory should also be a useful tool for examining aspects of workplace stress. Finally, I used equity theory for this study. Adams (1963) developed equity theory in 1963 to explain the motivation of individuals in the context of their perceptions of the extent to which all individuals in the organization receive fair treatment by management (Kivimäki, 2014; Skiba & Rosenberg, 2011).

Operational Definitions

The list to follow includes definitions of terms that specifically relate to this study. The terms are recognizable in the field of research related to workplace stress.

Acute stress: Acute stress is an intense type of stress with symptoms such as (a) headaches, (b) hypertension, (c) rapid heartbeat, and (d) stomach problems (Bucurean & Costin, 2011).

An Organizational Stress Screening Tool (ASSET): ASSET is an instrument designed to assess the stressors and risk of organizational stress in the workforce (Cartwright & Cooper, 2002).

Burnout: Burnout is the state of (a) physical, (b) emotional, and (c) mental exhaustion that is the direct result of prolonged exposure to a stressful situation (Brauchli, Bauer, & Hämmig, 2011).

Effort–reward imbalance (ERI) theory: Social reciprocity and social exchange reflect the norm of return expectancy in which separate rewards reciprocate efforts (Ganster & Perrewe, 2011). Reciprocity leads to positive emotions that promote positive health and well-being (Parker, 2014), whereas failure to reciprocate leads to negative emotions and sustained stress (Siegrist, 2001). The central concept of ERI theory relates to the existence of an imbalance between perceived effort (job demands) and reward (Ganster & Perrewe, 2011; Siegrist, 2001).

Employee well-being: Employee well-being refers to (a) job satisfaction, (b) job-related tension, and (c) job-related depression (Siu, 2013).

Job performance: Job performance refers to both the process of performance and the outcomes delivered by performance. The process of performance refers to the actions and behaviors of employees in the workplace (Bakker, Demerouti, & Lieke, 2012). The outcomes of performance refer to the production of products and services that align to the strategic objectives of an organization (Boyd et al., 2011).

Social support: Social support refers to the support individuals perceive that they receive from peers, family, friends, managers, and leaders (Lopez, 2011).

Stressors: Stressors refer to external stimuli employees consider the cause of their perceived stress (Sanderson, Bruk-Lee, Viswesvaran, Gutierrez, & Kantrowitz, 2013).

Work–life conflict. Work–life conflict can present in several ways: (a) life outside the job may interfere with work responsibilities; (b) work responsibilities may interfere with life outside the job; (c) conditions at work may positively or negatively spill over to personal life; and (d) personal life may positively or negatively spill over to work (Grawitch, Maloney, Barber, & Mooshegian, 2013).

Workplace stress: Workplace stress refers to self-reported stress caused by any aspect of a person's job that is quantifiable using the designated organizational stress measure of the study (Centers for Disease Control and Prevention, 2012).

Assumptions, Limitations, and Delimitations

Assumptions

Assumptions are obvious realities or facts related to research, and without these assumptions, the research is pointless (Denscombe, 2013). Researchers must declare all the assumptions they make during the course of their research (Denscombe, 2013). I assumed that the number of employees of the subject Irish HEI who participated in the study would meet or exceed the minimum number of participants required to achieve the desired level of statistical power. I also assumed that participants would

- be willing to participate in the study;
- provide accurate and honest information regarding their perceptions of social support, work–life conflict, job performance, and workplace stress;
- adhere to the limits of confidentiality by not discussing confidential information with others; and
- understand the survey instructions.

Finally, I assumed that ASSET would be an effective instrument for collecting data that would enable me to examine the relationships between the variables and covariates.

To ensure that the assumptions I made were realistic, I carefully monitored the survey returns for the period during which the survey was open (February 9 to February 27, 2015). I issued reminders during the period to encourage potential participants to take the survey. Furthermore, managers in the subject HEI assured me that they would encourage staff to participate in the survey. Managers raised the issue of participation at team meetings and one-to-one meetings during the survey open period. If necessary, I would have extended the closing date of the survey to obtain the minimum number of participants required to achieve the desired level of statistical power. However, this was not necessary.

A strength of quantitative research is the amount of published research data available to researchers to clarify and validate their research (Howitt & Cramer, 2011). Because leaders in more than 100 organizations with over 100,000 employees have used ASSET, benchmarking the responses from this study was both accurate and meaningful and confirmed the assumptions for this study (Robertson Cooper, 2014). Also, I checked the responses against peer-reviewed literature and research to substantiate the assumptions (Howitt & Cramer, 2011).

Limitations

The term *limitations* refers to the possible weaknesses and boundaries of a study (Akakandelwa & Jain, 2013). For example, in this study, the fact that the survey participants were employees of one Irish HEI only was a limitation because I could not

generalize the results beyond the subject institution. Confining the study to one institution removed a large number of participants from the potential participant pool of approximately 30 HEIs. In this study, I depended on senior management supporting the data collection survey. If senior management had lacked commitment, participants might have been reluctant to engage (Blair, Czaja, & Blair, 2013). Members of senior management gave me their full commitment to and support for the study.

Delimitations

Delimitations of a study are those statements that define the boundaries of the study that arise from (a) the scope of the study (problem and purpose statements), (b) limitations of the study, and (c) the conscious inclusionary and exclusionary decisions made during the development of the research proposal (Denscombe, 2013). Denscombe (2013) noted that researchers must inform their audience of what they intend to do and what they do not intend to do. In this study, I examined and described the relationships between the variables and the covariates. Therefore, the study was not an intervention study. Examining possible changes or interventions within the participating institution for promoting employee well-being was outside the scope of this study. However, an analysis of the results may inform leaders' understanding of workplace stress and the relationships between social support, work–life conflict, job performance, and workplace stress across various job (staff category, direct reports) and demographic (age, gender) factors. Consequently, leaders should have a solid foundation for developing interventions.

The results from the study are specific to the participating institution; I did not generalize the results to other institutions or the broader population. Other variables that could have a bearing on workplace stress, such as (a) education level, (b) income level, (c) number of hours worked, (d) home working, and (e) office working, were outside the scope of this study.

Significance of the Study

Contribution to Business Practice

The results from this study may give rise to real and tangible benefits for the health of the workforce and the organization, for business, and for the organization's bottom line (van Scheppingen et al., 2013). Organizational managers strive to motivate their workforces to support business processes that enable high levels of productivity. When staff suffer from workplace stress, they are not able to function and carry out their occupational responsibilities (Avey et al., 2012). Therefore, workplace stress can reduce business productivity levels (Karam, 2011). Reducing workplace stress improves business performance because of the likelihood of reduced absenteeism rates and increased levels of job satisfaction and productivity (McVicar, Munn-Giddings, & Seebohm, 2013). Evidence clearly shows that organizational leaders are spending billions of dollars on lost time each year and are incurring increased health costs and lost productivity due to stress (Burton et al., 2012; Nasr, 2012; Spurgeon et al., 2012).

Stressful workplaces result in (a) employee tardiness, (b) absenteeism, (c) low productivity, (d) high employee turnover, (e) wasted investment in training, (f) increased costs due to training replacements for sick leave, (g) depression, (h) aggression, and (i)

violence (Safaria, 2014). Stress intervention programs on techniques for managing stress can improve employee health, reduce costs related to illness and absenteeism, and improve the productivity of the workforce (Coulter, Khorsan, Crawford, & Hsiao, 2013; Larsson, Ljungblad, Sandmark, & Åkerlind, 2014; O'Donnell, 2013; Wolever et al., 2012). A motivated, committed, and healthy workforce is an asset to any organization and can be a source of competitive advantage (Lerner, Rodday, Cohen, & Rogers, 2013; van Scheppingen et al., 2013). Developing the skills of employees not only assists in reducing workplace stress, but also leads to (a) better employee engagement, (b) greater efficiency, (c) higher productivity, and (d) better organizational performance (Simbula, Panari, Guglielmi, & Fraccaroli, 2012). Business leaders who fail to provide workplace interventions for the professional development of staff do not get the best value from the available talent and, consequently, do not achieve optimum performance (European Commission, 2012).

When business leaders lose highly skilled workers, employers need to invest tremendous resources to replace those workers (Safaria, 2014). When coworkers leave a business, the opportunity costs and low staff morale, together with lost productivity, have a negative effect on the business's profit margins (Evers, Castle, Prochaska, & Prochaska, 2014). Employee turnover caused by reduced levels of job satisfaction due to workplace stress costs organizational leaders in terms of (a) exit costs, (b) recruitment and selection, (c) training, (d) dealing with stress, and (e) low productivity (Evers et al., 2014).

Understanding and improving business practices related to (a) social support, (b) work–life conflict, (c) job performance, (d) job and demographic factors, and (e) workplace stress should enable leaders to develop organizational-level interventions to deal with workplace stress (Jamal, 2013). From this quantitative correlational study, leaders may gain an understanding of the relationships between different perceptions of social support, work–life conflict, job performance, and workplace stress. After leaders understand these aspects of workplace stress and the ways different groups of employees perceive workplace stress differently, the leaders can identify interventions to reduce workplace stress, which may contribute to (a) an improvement in the return on investment in training; (b) a reduction in replacement, sick leave, and reactive health costs; and (c) the establishment of the selected HEI as an employer of choice (Kossek, Kalliath, & Kalliath, 2012). Improved business practices and interventions based on the relationships between social support, work–life conflict, job performance, and workplace stress should enable leaders of the subject institution to improve the institution's competitive advantage and achieve its strategic business goals (van Scheppingen et al., 2013). The types of relationships among the variables that emerged from this study may inform organizational leaders' understanding of the relationships between social support, work–life conflict, job performance, and workplace stress.

Implications for Social Change

In this study, I focused on workplace stress. In particular, I focused on employees' perceptions of social support, work–life conflict, job performance, and workplace stress. Furthermore, I determined whether different staff groups have different perceptions of

social support, work–life conflict, job performance, and workplace stress as measured by the results of the ASSET test. Leaders may be able to use the results from this study to devise and implement organizational strategies that could help reduce work-related stress and the costs associated with low productivity, absenteeism, and presenteeism, thereby preserving scarce financial resources and improving organizational performance. Researchers have noted that organizational-level interventions can have the most significant impact in handling workplace stress (Augustsson, von Thiele Schwarz, Stenfors-Hayes, & Hasson, 2014; Nielsen & Randall, 2013).

Between 1980 and 2013, various researchers highlighted that workplace stress has detrimental consequences for employee well-being (Walinga & Rowe, 2013). Workplace stress can have a negative effect on both the physical and the mental well-being of individual workers (Tetrick & Campbell-Quick, 2011). The focus of an examination of work–life conflict is employees' ability to manage the many different aspects of their lives (Demerouti, Derks, Lieke, & Bakker, 2014). Workplace stress interventions extend the public health model to the workplace by using prevention, promotion, and therapeutic measures to improve employee well-being from both a physical and a psychological perspective (Tetrick & Campbell-Quick, 2011). Proponents of the public health model put prevention as the first form of defense when attempting to reduce and eliminate exposure to diseases, viruses, and illnesses (Mellor, Karanika-Murray, & Waite, 2012). Workplace health interventions that follow the public health model will improve the health and well-being of everyone in the population (Tetrick & Campbell-Quick, 2011). Findings from this study may support social change by generating new knowledge

relating to safety, health, and well-being, which could improve the health and well-being of the whole population. Leaders who review the study's findings may become more aware of the relationships between social support, work–life conflict, job performance, and workplace stress, which should mean leaders are able to instigate interventions that promote healthy lifestyles and reduce workplace stressors.

Although social demands on employees can be psychologically distressing, social support from friends, colleagues, and family tends to benefit psychological well-being. Therefore, reducing stress in the workplace can improve the quality of work–life balance and can improve general health and well-being (Carr, Kelley, Keaton, & Albrecht, 2011; Greenhaus & Allen, 2011). The availability of work–life conflict interventions and initiatives in the workplace should generate positive social outcomes, such as reduced interrole conflict and higher levels of work–life satisfaction, for employees (Cegarra-Leiva, Sánchez-Vidal, & Cegarra-Navarro, 2012). In this study, I focused on employees in their specific organizational situations and on how work–life social relationships can affect social change in the work–life context (Choi & Kim, 2012). Furthermore, leaders' use of interventions such as flexible work practices and policies may help to foster social responsibility in the workplace and broaden the cultural horizons of the workforce (Dimitrov, 2012). Flexible work practices should have a positive impact on work–life spillover and stress among women, single parents, and employees with heavier family workloads (Jang, Zippay, & Park, 2012).

There is a clear requirement for further research that can deliver organizational-level interventions to help leadership deal with workplace stress and social aspects of

employees' lives that affect employee behavior (Augustsson et al., 2014; Nielsen & Randall, 2013). In the traditional body of literature, researchers focused on a large number of issues that give rise to workplace stress but gave insufficient attention to the social aspects of employees' lives (Gachter et al., 2011). Social support, which includes support outside the workplace and its impact on workplace stress, remains an underdeveloped topic. I examined social support in this study through the variable of work–life conflict (Gachter et al., 2011; Kossek, Pichler, et al., 2011; Pridgeon & Whitehead, 2013).

Using a correlational design for this study enabled me to collect rich, detailed data that yielded unique insights into the research problem (Howitt & Cramer, 2011) and could lead to positive social change in the lives of employees. The results from this study may give leaders additional information and an understanding of the relationships between social support, work–life conflict, job performance, and workplace stress and of the social aspects of employees' lives that affect behavior. In addition, I examined whether different staff groups have different perceptions of social support, work–life conflict, job performance, and workplace stress and if there is any significance for the social context of the different staff groups (Heaney, 2011). After reviewing the results of the study, senior management should be in a better position to devise ways of (a) reducing workplace stress, (b) improving employee health and well-being, and (c) generating positive social outcomes for employees. Reduced levels of workplace stress should result in higher levels of work–life satisfaction (Heaney, 2011). My research may appeal to business audiences beyond the target audience, which is the higher education

sector in Ireland. A better understanding of workplace stressors in an Irish higher education context and the use of better workplace interventions should improve the (a) quality of life, (b) safety, (c) health, and (d) well-being of all members of society (Heaney, 2011). Effectively managing workplace stress and implementing a support model should enhance employee perceptions of justice in the workplace and positively influence employee attitudes and well-being in work and nonwork environments (Rodwell et al., 2011; Tessema, Tsegai, Ready, Embaye, & Windrow, 2014). The types of relationships, if any, among the variables that emerge from the study may inform leaders' understanding of possible interventions that contribute to social change.

A Review of the Professional and Academic Literature

I conducted a literature search to identify peer-reviewed published articles, relevant government-sponsored websites, and seminal books related to the topic of workplace stress. Keywords for the literature search included combinations of the following: *coworker support, disability management, distributed leadership, effort–reward imbalance theory, employee well-being, equity theory, expectancy theory, flexible working, health and safety assessments, job performance, leadership support, management tools, mental health in the workplace, occupational health and safety, occupational stress, occupational stress prevention, organizational change, organizational stress, social capital, work–life balance, work–life conflict, workplace social support, workplace stress, workplace stress appraisal, workplace stress intervention,* and *workplace stressors*. From January 2013 to April 2015, I conducted electronic literature searches using the Walden Library databases, including Business

Sources Complete/Premier, ABI/INFORM Complete, Emerald Management Journals, and SAGE Premier, as well as using Google Scholar. In addition, I conducted manual searches relevant to workplace stress at an academic library in Ireland. I included 221 references in the study, 96% of which are peer reviewed and 91% of which were less than 5 years old in 2015, the expected year of approval of my completed study.

The literature review includes the core research concepts related to the purpose of this study, including (a) workplace stressors, (b) job performance, (c) coworker support, (d) leadership support, (e) work–life conflict, and (f) workplace stress interventions. I begin the literature review with a discussion of workplace stressors and the impact of stress on the bodies and minds of individuals. The section includes examples of perceived workplace stressors. In the literature review, I summarize previous research on ERI theory, expectancy theory, and equity theory to inform my understanding of social support and work–life conflict. The theories helped me to understand the relationships between colleagues, employees, and managers as well as employees' nonwork relationships. The review continues with a discussion of additional research from literature that is relevant to the research questions and includes a review of (a) workplace stress, (b) social support, (c) work–life conflict, (d) job performance, and (e) workplace stress interventions. The literature review concludes with a summary and transition to the research project.

Workplace Stressors

Between 1990 and 2010, researchers examined the causes and effects of perceived workplace stressors (Tetrick & Campbell-Quick, 2011). Evidence shows clearly that

organizational leaders spend billions of dollars on lost time each year and incur increased health costs and lost productivity due to stress (Burton et al., 2012; Nasr, 2012; Spurgeon et al., 2012). Stressful workplaces result in (a) employee tardiness, (b) absenteeism, (c) low productivity, (d) high employee turnover, (e) wasted investment in training, (f) increased costs due to training replacements for sick leave, (g) depression, (h) aggression, and (i) violence (Safaria, 2014). Dealing with workplace stress makes good business sense because lowering stress levels can (a) reduce absenteeism, (b) improve job satisfaction, (c) increase productivity, (d) enhance the organization's image, and (e) improve performance outcome satisfaction (POS; Kobussen et al., 2014; Swayze & Burke, 2013). Researchers have conducted numerous studies on the different types of perceived stressors that can cause employees to experience stress (Spurgeon et al., 2012) and have numerous issues that give rise to workplace stress.

Researchers and organizational leaders have identified workplace stress as one of the most significant problems facing leaders of organizations across the European Union (Kelloway, Turner, Barling, & Loughlin, 2012). Between 1970 and 2010, researchers found that workplace stress had detrimental consequences for productivity and employee well-being (Billing et al., 2014). Compared to employees with normal levels of stress, employees with high levels of stress cost organizations more, are less productive, and are more likely to suffer from conditions such as (a) cardiovascular disease, (b) obesity, (c) cancer, (d) diabetes, (e) depression and anxiety, and (f) musculoskeletal disorder (Wolever et al., 2012). Furthermore, long-term workplace stressors cause more acute mental and physical health problems than short-term workplace stressors (Dhabhar,

2014). Workplace stress can incur a significant emotional cost to employee well-being and a substantial economic cost to organizational performance (Kelloway et al., 2012).

Workplace stress can derive from specific aspects of the work, such as job demands, excessive workload, and role ambiguity, or from social factors, such as poor leadership and feeling unappreciated or undervalued (Spurgeon et al., 2012). Researchers using the ERI model have found that employees who demonstrate unreciprocated high effort over a prolonged period can become ill (Hyvonen et al., 2011). High ERI can involve low heartrate variability, which may lead to a higher risk of heart disease (Uusitalo et al., 2011). Workplace stress can have a negative impact not only on the physical being, but also on the mental well-being of individual workers. Leaders of organizations operating in a knowledge economy should view mental health as a strategic asset because good mental health can be a source of innovation and creativity (van Scheppingen et al., 2013). Psychological stress related to the workplace significantly contributes to (a) low staff morale, (b) absenteeism, (c) high staff turnover, and (d) reduced productivity (Limm et al., 2011). Presenteeism is an issue in many organizations because employees who fall into this category operate at a suboptimal level, which results in low productivity (Cancelliere, Cassidy, Ammendolia, & Côté, 2011; van Scheppingen et al., 2013). Such staff (a) work while they are ill, (b) try to work harder, or (c) put in longer hours, all of which exacerbate the costs of workplace stress (Walinga & Rowe, 2013). Employees with symptoms of work-related stress are more expensive because of the resultant medical support costs and lower productivity (VanWormer et al., 2011).

Researchers have highlighted the impact that globalization has had on the complexity of organizational life as a consequence of (a) shifts in the balance of power; (b) emerging global markets; (c) the global interconnectedness that comes from technology advances; and (d) the combination of religious, territorial, cultural, and political differences (Clayton, 2012; Sheppard, Sarros, & Santora, 2013; Simbula et al., 2012). Therefore, employees are constantly facing new challenges at a rate and of an order unimaginable to previous generations. These modern-day complexities and challenges heighten the tensions between work and nonwork life (Billing et al., 2014). As a result of these global complexities, traditional methods and forms of interventions for workplace stress may not be viable.

Researchers have identified three main sources of workplace stress: (a) role ambiguity, (b) role conflict, and (c) work overload (Billing et al., 2014). These sources of workplace stress can negatively affect job satisfaction, job involvement, and organizational commitment and can result in high ERI and perceptions of inequity (Billing et al., 2014; Kobussen et al., 2014; Olejniczak & Salmon, 2014; Tanaka, Maruyama, Ooshima, & Ito, 2011). Role ambiguity, which researchers have well documented as a stressor in the workplace (Billing et al., 2014), relates to a lack of clarity and predictability around an individual's job (Hancock & Page 2013; Solanki, 2013). Role conflict occurs when there are too many contrary demands relating to an individual's (a) role, (b) responsibilities, (c) objectives, and (d) expectations and leads to high levels of job-related strain (Simbula et al., 2012). Researchers have linked job demands to (a) substance abuse, (b) bad physical health, (c) depression, and (d)

psychological distress (Boyd et al., 2011). Work overload relates to (a) an excessive workload, (b) time pressures, (c) a lack of resources, and (d) deadlines that make it impossible for individuals to complete their objectives (Safaria, 2014; Sinha & Subramanian, 2012). A perceived lack of control over workload is a source of workplace stress (McVicar et al., 2013). Role ambiguity, role conflict, and work overload lead to psychological strain in the form of nervousness, anxiety, and depression and have a negative impact on organizational commitment, job satisfaction, and employee engagement (Billing et al., 2014; Kobussen et al., 2014).

Organizational commitment relates to the desire of an individual to remain with an organization (Boyd et al., 2011). Individuals suffering from ill health or workplace stress tend to put less effort into achieving organizational outcomes and have low levels of organizational commitment (Boyd et al., 2011). Individuals can also overcommit by getting the ERI ratio wrong, which can lead to ill health (Olejniczak & Salmon, 2014). Overcommitting is a good indicator of symptoms leading to depression and anxiety (Bergin & Jimmieson, 2013; Olejniczak & Salmon, 2014). Job satisfaction relates to an individual's happiness and contentment with his or her job, and job satisfaction leads to positive attitudes and attributes in the workplace and has a positive effect on productivity (Evers et al., 2014; Kobussen et al., 2014; Olejniczak & Salmon, 2014; Tanaka et al., 2011). Employee turnover caused by low levels of job satisfaction costs organizational leaders in terms of (a) exit costs, (b) recruitment and selection, (c) training, (d) dealing with stress, and (e) low productivity (Evers et al., 2014). In terms of employee engagement, individuals need to participate in their job to have a sense of self-worth and

play an important part in the organization (Schermuly, Schermuly, & Meyer, 2011). The degree of autonomy, decision latitude, or authority an employee has when making decisions about his or her job in the workplace is also a factor to take into account when considering workplace stressors (Billing et al., 2014; Simbula et al., 2012).

Another organizational stressor is the fear and anxiety created by innovation and organizational change. When employees face changing competition, new technologies, and shifting markets, they can often feel as though they are meeting challenges never dealt with by previous employees or managers (Damanpour & Aravind, 2012). However, researchers have traced innovation and change management back to the 1800s. An association exists between innovation with a fear of change and workplace stress (Walinga & Rowe, 2013). Organizational leaders can benefit from both sides of the one emotion, namely fear and excitement, by proactively managing change. If individuals feel stressed and fear change, they are less likely to embrace change (Kasemsap, 2014). However, if individuals feel excited about change and possible new opportunities, they are more likely to embrace change and feel less stressed (Walinga & Rowe, 2013). Therefore, the role of the manager is to create an environment of excitement and opportunity rather than one of fear, resistance, and stress (Damanpour & Aravind, 2012). Fear is one of the key defenses for survival in human beings and is part of every person's makeup. Fear has the effect of keeping people sharp and alert to danger. Emotional management is a central coping mechanism in stressful situations and can result in a fight or flight reaction to the stressor (Walinga & Rowe, 2013). Managers must understand employees' fears and anxieties and address them through (a) open dialogue, (a) role

clarification, (b) empowerment, (c) transparency, (d) support, and (e) ongoing communication (Holt & Marques, 2012). If the manager can turn fear and anxiety into excitement and enthusiasm, he or she will have removed resistance to change, anxiety, and stress and replaced them with enthusiasm and eagerness (Kasemsap, 2014). However, removing fear and anxiety is difficult and requires (a) time, (b) patience, (c) perseverance, (d) understanding, and (e) endless communication.

Organizational change agents and managers can garner considerable practical guidance from research in their efforts to understand and deal with resistance to change (S. E. Cooper, Nieberding, & Wanek, 2013). Researchers recently analyzed the cognitive, affective, and behavioral aspects of individual resistance and how (a) predispositions to openness and resistance to change, (b) considerations of threats and benefits of change, (c) communication, (d) understanding, (e) participation, (f) trust in management, (g) management styles, and (h) relationships with management influence individual resistance (Seo et al., 2012). In addition, leaders and managers are susceptible to stress, particularly if they internalize the (a) complaints, (b) grievances, (c) criticisms, and (d) protests of employees (Tetrick & Campbell-Quick, 2011).

In the past, people thought of academia and HEIs as being places of employment where workplace stress was not an issue (Mark & Smith, 2012). With pressures resulting from increased student numbers, the requirement to publish research, and globalization, this is no longer the case (Boyd et al., 2011). According to Mark and Smith (2012), workplace stress in academia now exceeds the norm for the population in general due to emergent stressors relating to (a) workloads, (b) promotions, (c) salaries, (d) temporary

contracts, (e) communication, (f) work–life conflict, and (g) competition for research grants. Cantano et al. suggested that the following stress measures were appropriate to use when examining workplace stress in a university setting: (a) decision latitude, (b) work overload, (c) role ambiguity, (d) work–life conflict, (e) unfair administration, (f) unfair chairperson, and (g) unfair rewards. Earlier in this section, I examined (a) role ambiguity, (b) role conflict, (c) decision latitude, and (d) work overload, all of which relate to job performance.

Unfair administration refers to a lack of procedural fairness in the decision-making process, and *unfair chairperson* refers to a lack of transparency, inaccuracy of information, and failure to ensure that a chairperson hears all views before making a decision or taking a specific course of action (Mark & Smith, 2012). By examining unfair administration, work–life conflict, and unfair chairperson, I gained an understanding of social support and its impact on workplace stress in a higher education setting. Workplace stressors often affect job outcomes such as job satisfaction and organizational commitment, as identified earlier in the study (Kobussen et al., 2014; Mark & Smith, 2012; Tanaka et al., 2011). Other job outcomes appropriate to a higher education setting include *positive well-being*, *physical strain*, and *psychological strain* (Mark & Smith, 2012). Positive well-being refers to the positive attitude and enthusiasm exhibited by individuals in the work environment and arises from positive work experiences (Adaramola, 2012). Physical strain refers to strains of a physical nature that individuals may experience in the workplace (Lopez, 2011). Psychological strain refers to mental health issues that individuals may experience in the workplace (Mark & Smith, 2012).

ERI, Expectancy, and Equity

ERI theory, expectancy theory, and equity theory formed the theoretical framework for this quantitative correlational study. Self-regulation is important for health and well-being and is dependent on successful social exchange (Siegrist, 2001). In this study, I analyzed the relationships between perceptions of social support, work–life conflict, job performance, and workplace stress. Therefore, the social reciprocity and social exchange principles inherent in ERI theory made this theory appropriate for this study. Social reciprocity and social exchange reflect the norm of return expectancy in which separate rewards reciprocate efforts (Ganster & Perrewe, 2011). Failure to reciprocate this norm will lead to negative emotions and sustained stress. However, reciprocity will lead to positive emotions that will promote positive health and well-being (Parker, 2014). Based on the principles of ERI theory, a lack of reciprocity between costs and gains elicits negative emotions with a propensity to sustained autonomic and neuroendocrine activation (Siegrist, 1996). The expectancy and reward aspects of ERI tie in with expectancy theory, which also formed part of the theoretical framework of this study.

Vroom (1964) proposed expectancy theory to explain the decision-making process of individuals based on behavioral alternatives. Abadi, Jalilvand, Sharif, Salimi, and Khanzadeh (2011) and Manolova, Brush, Edelman, and Shaver (2012) expressed expectancy theory as follows:

$$\textit{Motivation Force} = \textit{Expectancy} \times \textit{Instrumentality} \times \textit{Valence} \quad (1)$$

Because expectancy theory is a useful framework for assessing, interpreting, and evaluating employee behavior in relation to attitude formation and decision making (Nasri, 2012), expectancy theory should be a useful tool for examining aspects of workplace stress. *Expectancy* refers to the probability that effort will lead to good performance, *instrumentality* refers to the expectation that good performance will lead to preferred outcomes, and *valence* refers to the value individuals place on rewards (Abadi et al., 2011). Not having an expectation that management will recognize the efforts of members of the workforce will negatively affect the workforce and the organization as a whole (Branham, 2012). For optimal organizational performance, all members of staff should expect that their employers will recognize their efforts. Leaders who neither recognize effort nor reward employees fairly or who set expectations too high can create unfavorable situations, staff dissatisfaction, and higher levels of stress (Sinha & Subramanian, 2012).

Adams (1963) developed equity theory in 1963 to explain the motivation of individuals in the context of their perceptions of the extent to which all individuals in the organization receive fair treatment by management (Kivimäki, 2014; Skiba & Rosenberg, 2011). Al-Zawahreh and Al-Madi (2012) noted that organizational leaders should consider equity theory in processes such as promotion, recognition, and development. The many structural, procedural, and cultural changes experienced by employees in public sector organizations as a result of greater managerialism result in increased levels of workplace stress (Rodwell, Noblet, & Allisey, 2011). Through equity theory, Adams provided insight into how individuals view their recognition relative to their contribution

when comparing themselves to others. Loughlin, Arnold, and Crawford (2012) noted there is growing evidence that the same organizational behavior by male and female leaders does not lead to the same results. Inequity will result in individuals becoming less committed and demonstrating less effort (Skiba & Rosenberg, 2011). Organizational leaders expend much time, effort, and resources in developing their workforces. Leaders of organizations also promote self-management and autonomy as the binding force of teamwork (Al-Zawahreh & Al-Madi, 2012). Inequity will (a) lead to dissatisfaction and anger, (b) disrupt teamwork, (c) create inefficiencies, and (d) alienate groups who feel aggrieved (Al-Zawahreh & Al-Madi, 2012). Leaders who understand equity theory will also recognize the sources and signs of stress in the workplace.

ERI theory and expectancy theory, which is where employees and managers expect reward and recognition for expended effort, underpinned my examination of job performance. Researchers using the ERI model have directly linked ERI with negative impacts for health (Olejniczak & Salmon, 2014). Employees often feel that leaders and managers do not reward them adequately for their efforts by way of (a) salary, (b) promotion, (c) esteem, and (d) job security (Hyvonen, Feldt, Kinnunen, & Tolvanen, 2011; Olejniczak & Salmon, 2014). Little or no reciprocity leads to negative emotions and an increased risk of ill health as a consequence of increased stress (Hyvonen et al., 2011; Olejniczak & Salmon, 2014; Uusitalo et al., 2011). Researchers associate high ERI with employees who believe they receive a poor reward for their efforts (Hyvonen et al., 2011). In contrast, researchers associate low ERI with employees who believe they receive a fair reward for their efforts (Allisey, Rodwell, & Noblet, 2012). Employees

with high ERI are more susceptible to stress and illness and have higher burnout and slower recovery rates than employees with low ERI (Feldt et al., 2013).

Employees have expectancies when they engage in relationships, and the degree of equity in a relationship affects the outcomes of the relationship (Ganster & Perrewe, 2011). Employees expect a reward for their perceived contributions to the business, which translates into a contribution–reward ratio or POS (Estes, 2011; Kobussen, Kalagnanam, & Vaidyanathan, 2014; Wei, Frankwick, & Nguyen, 2012). In fact, POS leads to job satisfaction (Kobussen et al., 2014). Perceived equity in the contribution–reward ratio relative to peers depends on individuals' perception of the value of contribution by their peers as opposed to actual contribution (Kobussen et al., 2014). Employees who have a high perception of contribution can also have a high expectation for reward and an expectation for greater reward than their peers (equity; Estes, 2011; Kobussen et al., 2014).

Job Performance

Workplace stress is a major issue for organizational leaders because of its significant economic implications and impact on productivity, organizational performance, and the health and well-being of employees (Bucurean & Costin, 2011; K. Leung et al., 2011). Researchers have identified (a) a positive correlation between ERI and bad health, (b) a negative correlation between ERI and good health, (c) a positive correlation between variety and reward and good health, and (d) a negative correlation between variety and reward and bad health (Reineholm, Gustavsson, & Ekberg, 2011). Unrealistic demands, lack of resources, and constraints on employees lead to stressful

workplaces and can negatively affect performance (Sinha & Subramanian, 2012). Workplace stress leads to nervousness, tension, and strain, which negatively affect employees' health, well-being, and performance (Avey et al., 2012). Prolonged exposure to workplace stress will negatively affect job performance by reducing interest in work activities and initiatives and can lead to physical ill health and psychological symptoms of distress (Spurgeon et al., 2012). Conversely, regular interactions between managers and employees have a direct positive effect on employee work output (Evers et al., 2014). Leaders of high-performing organizations foster and nurture a climate of social interaction where managers and team members embrace meaningful engagement and team members participate in organizational activities and decision-making processes (Abugre, 2012).

Creating a climate of social interaction and social networking that can deliver real business benefits has business advantages. However, leaders and managers are reluctant to use these approaches, which remain undervalued because of fear, resistance, and risk (Kasemsap, 2014). Employees invest themselves in a job and expect they will receive something in return, such as (a) financial reward, (b) promotion, (c) job satisfaction, (d) job security, or (e) social recognition. This motivates employees to perform (Evers et al., 2014; Kobussen et al., 2014).

Organizations whose leaders embrace and value employee engagement perform much better than organizations whose leaders do not. Engaged leadership also leads to better performance (Fearon, McLaughlin, & Morris, 2013). Survey results indicated that a lack of management recognition for employee effort leads to high ERI (Olejniczak &

Salmon, 2014). Workplace stressors have a negative impact on staff motivation and job performance (Adaramola, 2012; Avey et al., 2012; Hancock & Page 2013; Solanki, 2013). Increased workplace stress leads to reduced productivity and performance, and increased job satisfaction leads to increased productivity and performance (Evers et al., 2014; Kobussen et al., 2014). However, stress has both negative and positive effects on performance. Too little stress can lead to boredom and lack of concentration, initiative, and motivation (M. Y. Leung, Chan, & Dongyu, 2011), whereas positive stress, or eustress, can lead to higher levels of performance and productivity (Adaramola, 2012; Avey et al., 2012). The presence of eustress can help employees to maintain (a) attentiveness, (b) focus, (c) stimulation, and (d) enthusiasm up to a certain point (Adaramola, 2012; Avey et al., 2012). Three different types of performance have an association with different stages of stress. Task performance relates to the fundamentals of the job; interpersonal performance refers to the relationships between the employee, colleagues, and management; and organizational performance derives from (a) good interpersonal relationships, (b) high staff morale, (c) an integrated workforce, (d) a sense of loyalty, and (e) a motivated workforce (K. Leung et al., 2011).

Stress levels can affect the degree of attention that workers pay to their surroundings and the task in hand and can even lead to accidents (Adaramola, 2012). Therefore, employees should pay close attention to their stress levels in the workplace so they remain capable of completing their tasks. Stress can affect an employee's ability to complete a task and, consequently, can affect the expectations of others. Should job or task stress continue, it can lead to physiological stress that will probably affect social

relationships (K. Leung et al., 2011). Job stress and physiological stress can trigger burnout, which can lead to negative organizational outcomes because employees could display (a) a negative or depersonalized attitude, (b) a lack of efficacy, (c) low morale, or (d) a lack of organizational commitment (Avey et al., 2012). Therefore, leaders should monitor job stress regularly so that they can act in a timely manner to ensure managers and employees handle stress before it escalates. This will ensure staff maintain high levels of performance (M. Y. Leung et al., 2011).

One of the oldest and most important concepts in stress management, which is the inverted-U relationship between pressure and performance, appears in Figure 1 (Adaramola, 2012; Avey et al., 2012). The left-hand side of the graph is easy to explain for pragmatic reasons. When there is very little pressure on people to carry out a task, there is little incentive for them to focus energy and attention on the task; this is particularly true when there may be other more urgent or more interesting tasks competing for attention (Adaramola, 2012; Avey et al., 2012).

As pressure on employees increases, employees enter the area of best performance and are able to focus on the task and perform well. There is enough pressure on them to focus their attention but not so much that it disrupts their performance (Adaramola, 2012; Savage & Torgler, 2012). Researchers have identified a positive relationship between stress and performance on the basis that employees sometimes work better under pressure (Domínguez, 2013; M. Y. Leung et al., 2011). Employees may think they work better under pressure because they believe that pressure drives them to work longer, harder, and faster (Binnewies & Wörnlein, 2011). K. Leung et al. (2011) noted that low levels of

stress result in lower levels of performance because people make no effort to cope with low workplace stressors; performance levels increase only when people cope with rising levels of stress. Savage and Torgler (2012) found that negative stress has a more significant impact on performance than eustress.

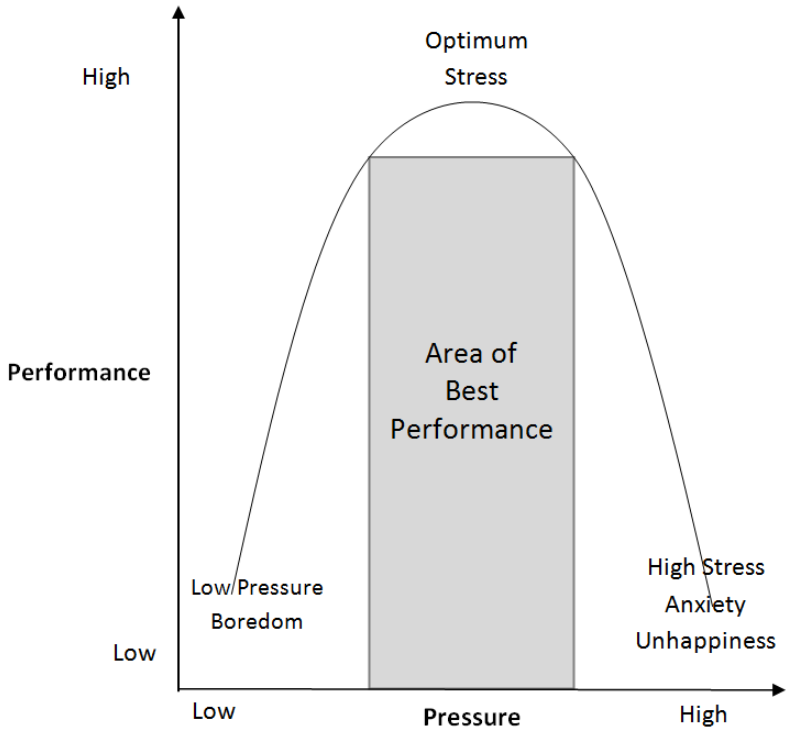

Figure 1. The inverted-U relationship between pressure and performance. Created by Robert Yerkes and John Dodson in 1908. Replicated from "How Does Stress Affect Performance?" by S. M. Sincero, 2012, retrieved from https://explorable.com/how-does-stress-affect-performance. Copyright 2008-2014 by Explorable.com.

Stressful working conditions have a connection with job performance, and the psychological, physiological, and behavioral outcomes associated with stressful workplace environments may elucidate such conditions (Noblet, Maharee-Lawler, & Rodwell, 2012). Employees in organizations that struggle to survive often experience stressful work environments and potential job insecurity in such organizations can

negatively affect employee well-being and job performance (Schreurs, Hetty van Emmerik, Günter, & Germeys, 2012). Employees who perceive the workplace to be stressful if the demands for performance are greater than the tools, resources, and skills available to them to do the job will feel unrewarded for their efforts, which can lead to perceptions of high ERI (Noblet et al., 2012; Olejniczak & Salmon, 2014; Sinha & Subramanian, 2012). Employees whose jobs are not secure or who find themselves in other stressful workplace situations where performance cannot meet demands can experience symptoms such as (a) anxiety, (b) hostility, (c) depression, (d) negative attitudes, (e) increased blood pressure, and (f) respiratory problems, which can lead to significantly lower levels of performance (Noblet et al., 2012; Schreurs et al., 2012).

Workplace stressors can affect two types of performance: *in-role performance* and *extra-role performance*. In-role performance relates to activities that employees undertake to perform the tasks of the role; extra-role performance, sometimes referred to as organizational citizen behavior, refers to performance that contributes to achieving the goals of the organization but is not part of the individual's role (Bouckenooghe, Raja, & Butt, 2013; König, Probst, Staffen, & Graso, 2011; Noblet et al., 2012; Schreurs et al., 2012). Workplace stress negatively affects both in-role and extra-role performance (Zhang, Liu, Wang, & Shen, 2011).

Employees who experience stressful working conditions or job insecurity can benefit from social support and employee–environment fit, which translate to perceptions of reward and reciprocity and reduces the employees' perception of high ERI (Olejniczak & Salmon, 2014; Schreurs et al., 2012). A poor fit between employees and the

environment will lead to workplace stress and poorer performance (Zhang et al., 2011). Employees not suited to a role or environment can become stressed and can perform poorly; such employees can perceive the demands of their job to be high and the rewards to be low (i.e., high ERI; Olejniczak & Salmon, 2014; Schreurs et al., 2012).

Developing new (a) products, (b) practices, (c) services, (d) processes, and (e) procedures requires creativity and innovation. These qualities are essential for the survival and sustainability of organizations in a rapidly changing global environment (Domínguez, 2013). Leaders of organizations can fail to achieve sustainable competitive advantage because of a lack of organizational creativity and innovation that can result from stress brought about by work overload or time pressures (Avey et al., 2012). Acute stress affects mental models and transactional memory, which affects the ability to process information and can lead to (a) a narrowing of thought, (b) reduced creativity because of increased cognitive rigidity, (c) a lack of tolerance for ambiguity, (d) poor judgment, and (e) poor performance (Avey et al., 2012). Leaders seeking to improve organizational performance should give serious attention and assistance to employees suffering from stress related to work overload or time pressures; appropriate action taken by leaders will lead to business success and employee well-being (Zhang et al., 2011).

The term *group atmosphere* relates to the attitudes of employees within a team to their work environment; *team atmosphere* relates to how team members cooperate or compete with their teammates and the levels of respect and commitment they have for each other; *social processes* refer to the interactions between team members who contribute to the team atmosphere (Domínguez, 2013). Individuals can perceive an issue,

problem, or initiative differently, which can lead to conflict (J. D. Shaw et al., 2011). Conflicts within the team can be relational-, task-, or process-related (Domínguez, 2013). Relational conflicts involve feelings of disappointment, anger, or frustration with other team members; task conflicts arise when people have different opinions about the tasks in hand; and process conflicts arise when team members have anxieties around how to achieve their tasks (Domínguez, 2013). Conflicts have a negative impact on individual, team, and organizational performance and creativity (De Wit, Greer, & Jehn, 2011). Conflict (a) increases stress and anxiety, (b) stifles creativity, (c) inhibits cognitive functions, and (d) reduces performance levels (J. D. Shaw et al., 2011). Conflict in the workplace and low perceptions of fairness can lead to high emotions and disengagement, which can result in reduced performance (M. Y. Leung et al., 2011).

Emotional intelligence refers to the ability of individuals to identify, assess, and control their emotions; *proactivity* refers to the ability of individuals to anticipate and self-initiate behavior that will increase their effectiveness in the workplace (Domínguez, 2013). Researchers have associated emotional intelligence and proactivity with the ability to overcome workplace stressors, increase performance levels, and reduce ERI (Fay & Sonnentag, 2012; Fischer & Martinez, 2013; Olejniczak & Salmon, 2014). Researchers have also identified a relationship between proactive attitudes and behaviors and the ability to achieve goals when encountering obstacles to success (Fay & Sonnentag, 2012). If employees are unable to find ways to overcome obstacles to the achievement of goals, they are unlikely to overcome workplace stressors. Such employees are less creative, less likely to improve at their job, and less likely to maintain levels of good performance

(Tsaur, Liang, & Hsu, 2012). Therefore, leaders should place importance on enhancing employees' ability to lessen the impact of workplace stressors, which is a feature of emotional intelligence (Tsaur et al., 2012). Nambi-Karuhanga and Werner (2013) showed that employee attitudes are critical to the achievement of performance in public universities.

Performance management relates to practices for directing and supporting staff to operate as effectively and efficiently as possible to achieve organizational goals and objectives (Nambi-Karuhanga & Werner, 2013). Whether evaluated through (a) manager assessments, (b) organizational assessment of effectiveness, or (c) job performance assessment by examinations, Hanif, Tariq, and Masood (2011) showed that performance levels decrease as stress levels rise. Performance management processes can give rise to significant anxiety in individual managers who undertake a performance review because of role conflict and having to rate underachievers poorly (Gbadamosi & Ross, 2012). The role conflict arises when an expectation exists that a manager will encourage performance by acting as a coach or mentor to an individual but then must rate the performance of that individual (Gbadamosi & Ross, 2012). Performance feedback can lead to adversarial situations, particularly if the team member receiving the feedback disagrees with the manager's point of view and perceives that the manager is not rewarding the employee's efforts (Fischer & Martinez, 2013; Olejniczak & Salmon, 2014). Managers can develop high levels of stress due to the anxiety of giving poor feedback to team members while representing the organization in the process (Gbadamosi & Ross, 2012). Furthermore, setting a team's objectives too high or too low can negatively affect the team, which can

lead to staff dissatisfaction and higher levels of stress (Nambi-Karuhanga & Werner, 2013; Sinha & Subramanian, 2012). Other researchers indicate that clarifying managerial expectations and performance criteria will remove work stressors such as ambiguity and uncertainty (Carmeli, Sheaffer, Binyamin, Reiter-Palmon, & Shimoni, 2014).

Posttraumatic stress disorder (PTSD), which can result from a single event or a series of events, has a significant negative impact on workplace performance (Lopez, 2011). Job loss, health concerns, or loss of financial independence can trigger a self-appraisal process, which can lead to high levels of stress, reduced levels of performance, and high ERI (Fischer & Martinez, 2013; Olejniczak & Salmon, 2014; M. R. Smith, Mills, Rasmussen, Wefald, & Downey, 2012). Negative appraisals of individual employees' work performance can have a harmful effect on self-concept and performance (Lopez, 2011; Sinha & Subramanian, 2012). Work performance pressure and an increased sense of self-consciousness can lead to high levels of stress and lower levels of performance (Savage & Torgler, 2012). Self-appraisal processes that include elements of threat and challenge can affect the way stressors affect performance (M. R. Smith et al., 2012). Threat stressors affect performance negatively, whereas challenge stressors affect performance positively (M. R. Smith et al., 2012). Individuals with low resilience to stressful situations and poor performance appraisals can be susceptible to PTSD, and a lack of social support from peers, family, and managers can exacerbate the extent to which the syndrome affects the individual (Lopez, 2011). Resilient individuals usually have a positive self-concept, respond to stressful situations in a positive manner, and are more likely to use social support to help them cope with stressful situations

(Lopez, 2011). Leaders should look for ways to build resilience in their team members so the team members are better able to cope with stressful situations and avoid the effects of PTSD. In fact, leaders can be susceptible to chronic and acute stress, or even distress that can lead to PTSD, for the following reasons: (a) the diversity and complexity of tasks, (b) a high level of responsibility, (c) worry for the future of the organization, (d) the negative impacts of poorly developed decisions, (e) an incorrect management approach, (f) a lack of delegation of authority, (g) a lack of skills in the team, and (h) having to respond to emergencies (Bucurean & Costin, 2011).

The most productive organizations are those whose leaders align the interests of the employee with the interests of the organization (Kossek et al., 2012). In such organizations, leaders value employee well-being by promoting a caring culture and recognizing effort through fair rewards (Fischer & Martinez, 2013). Leaders should nurture and develop employees, not view them as a cost to minimize, and performance management and employee well-being are part of the same agenda (Kossek et al., 2012). Positively emotionally engaged employees who are happy in the workplace perform better (Amible & Kramer, 2011). Employees not positively emotionally engaged and happy in the workplace cost U.S. employers $350 billion annually through (a) poor performance, (b) poor-quality work, (c) absenteeism, and (d) apathy toward the organization (Amible & Kramer, 2011). Organizational leaders who collaborate with employees on their well-being and work toward sustainability for society as a whole will reap the benefits through (a) innovation, (b) creativity, (c) positive relationships, and (d) enhanced business performance (Kossek et al., 2012). The existence of social supports

makes it more likely that an individual will develop problem-solving techniques to cope with stressful situations, resolve conflict, and perform better (Lopez, 2011). Furthermore, employees with robust interpersonal networks have more energy than those with weak interpersonal networks, which reduces stress and improves performance (M. R. Smith et al., 2012). Leadership, quality coworker relationships, and energy are basic precursors to stress reduction and enhanced organizational performance (Hansen, Byrne, & Kiersch, 2014).

Social Support

The exploration of social support and its relationship to workplace stress remains an underdeveloped topic (Gachter et al., 2011; Kossek, Pichler, et al., 2011; Pridgeon & Whitehead, 2013). Social support is a critical feature of the workplace because good relationships are necessary between employees and between employees and leadership (Chandra, 2012). Social support refers to an individual's belief that he or she is (a) valued, (b) informed, (c) communicated with, (d) emotionally cared for, and (e) part of a relationship group or network (Fernandes & Tewari, 2012). Social support is critical in most contexts in organizational life. In particular, support from leadership and coworkers has a positive impact on well-being; employees who feel supported feel less stressed and believe themselves fairly rewarded for their efforts (Demerouti et al., 2014; Fischer & Martinez, 2013; Thi Giang, Corbière, Neg, Minh Khuê, & Reinharz, 2013). The provision of social support can be one of the most important ways of promoting psychological well-being and buffering the negative impact of workplace stress (Fernandes & Tewari, 2012; Jamal, 2013). Social support represents the robust social

networks available to staff through (a) colleagues, (b) managers, (c) friends, and (d) employee assistance programs to help staff cope with workplace stressors (Nair & Xavier, 2012; Walinga & Rowe, 2013). Employees with robust social support at work are better able to cope with stressful workplaces and are more effective at coping with stress (Ladegård, 2011). Coworkers who have a positive disposition and are emotionally supportive have a positive impact on performance and act as an effective buffer for stress (M. R. Smith et al., 2012). An employee has a greater chance of coping with very stressful situations if family and coworkers are well-disposed to supporting the individual (Lopez, 2011). In fact, social support from coworkers can be an effective mechanism for shielding employees from the negative effects of work stressors (Schreurs et al., 2012). When strong networks of coworkers support employees, greater dynamism, bonds, and flourishing within the networks or groups in which they operate will ensue (M. R. Smith et al., 2012). Workplace stress can be a by-product of work-related activities but can also be a symptom of the absence of social support (Boscolo et al., 2012). Employees with high psychological demands, limited job control, and minimal leadership or coworker support are at risk of developing poor health (DeTienne, Agle, Phillips, & Ingerson, 2012). Employees with supportive coworkers with whom they have positive relationships run a 5% lower risk of misusing alcohol, which can be a consequence of workplace stress (Saade & Marchand, 2013). Stress arises from a misalignment between the individual and the work environment, and employees cannot avoid becoming stressed because the environment is usually beyond the control of the individual (Kavitha, 2012).

An effective buffer for workplace stress often takes the form of social support. However, the effectiveness of social support depends on factors such as the type of role conflict and on the status of the social support, such as coworker support or leadership support; immediate leadership support is the most effective type of social support (Jamal, 2013; Soparnot & Codo, 2013). The willingness of coworkers to support colleagues through (a) cooperation, (b) friendliness, (c) care, (d) positive relations, (e) empathy, and (f) respect creates less stressful and more healthy workplace environments (Fernandes & Tewari, 2012).

Coworker behaviors are not always supportive; there are times when they can have a negative impact on others (Deery, Walsh, & Zatzick, 2014). Interpersonal counterproductive work behaviors (ICWBs) are behaviors intended to cause physical or psychological harm to a coworker and negatively affect his or her well-being (Ho, 2012). Interpersonal counterproductive work behaviors can also have a negative effect on task or job performance because the focus of some such behaviors is impeding an individual from doing his or her job and meeting organizational objectives (Ho, 2012). Individuals can sometimes display interpersonal counterproductive work behaviors in response to workplace stressors (Ho, 2012). Interpersonal counterproductive work behaviors such as (a) workplace bullying; (b) harassment; and (c) aggression by leaders, coworkers, or other employees are recent phenomena with regard to workplace stress (Tetrick & Campbell-Quick, 2011). Bullying refers to repeated inappropriate behavior that a person either consciously or unconsciously directs at one or more employees and that is unwanted by the victim because it causes humiliation, offense, or distress and leads to a

poor work environment (Tambur & Vadi, 2012). Researchers have associated bullying and interpersonal conflicts with more frequent instances of illness and absenteeism and reduced job satisfaction, efficiency, and productivity, all of which negatively affect employees' perceptions of equitable treatment and self-esteem (Kobussen et al., 2014; Mikkelsen, Hogh, & Puggaard, 2011). Karam (2011) noted that employees working under conditions of conflict or conflict-related stress continue to put in extra effort and help their coworkers and the organization to achieve their goals.

Bullying and conflict are symptoms of modern organizational life, where (a) unmanageable workloads, (b) poor communication, (c) poor conflict management, (d) poor work organization, (e) excessive monitoring, (f) destructive leadership styles, (g) organizational change, and (h) inappropriate work assignments can lead to a stressful work environment and high ERI (Almadi, Cathers, & Chow, 2013; Feldt et al., 2013; Fischer & Martinez, 2013; Kalliath & Kalliath, 2012; Tambur & Vadi, 2012). Organizational change that gives rise to increased psychological demands can have a negative impact on employees' mental health within a short time frame (P. M. Smith & Bielecky, 2012). The absence of social support in the workplace increases the risk of major depressive disorder (Stansfeld, Shipley, Head, & Fuhrer, 2012). A culture of bullying and conflict that leads to stress in the workplace can be a consequence of a poor social work environment and autocratic leadership styles (Tambur & Vadi, 2012).

Leadership support can account for the difference between employees experiencing high job satisfaction with low levels of stress and low job satisfaction with high levels of stress (DeTienne et al., 2012; Feldt et al., 2013; Kobussen et al., 2014). The

actions of supportive leaders are likely to reduce levels of perceived stress; abusive leaders are more likely to create an environment with high levels of perceived stress (DeTienne et al., 2012; Mehta & Parijat, 2012). Organizational leaders have pursued strategies to reduce workplace stress through supportive social systems that enhance positive communications, teamwork, and cooperation (Fernandes & Tewari, 2012). Employees who perceive that their coworkers respect them are likely to experience positive attitudes and higher levels of job satisfaction, both of which mitigate the negative effects of workplace stress (DeTienne et al., 2012). Leadership behaviors such as (a) treating individuals fairly, (b) allocating equitable workloads, (c) acting with integrity, (d) empowering employees, (e) communicating and giving feedback, (f) providing opportunities for employee development and participation, (g) resolving conflict, and (h) reciprocating effort with reward can reduce workplace stress (Feldt et al., 2013; Fernandes & Tewari, 2012).

The practices of leaders, managers, and supervisors have emerged as a contributor to and explanation for some forms of workplace stress and high ERI (Feldt et al., 2013; Idris, Dollard, & Winefield, 2011). In Australia, researchers found that successful interventions relating to work–life balance were dependent on the attitudes and behaviors of leaders and managers (Demerouti et al., 2014). Workplace stressors include poor relationships between managers and staff, inadequate communication, and lack of support (McVicar et al., 2013). Workplace stressors such as job insecurity can have a negative impact on in-role performance. However, leadership support can negate job insecurity, thereby maintaining levels of in-role performance (Schreurs et al., 2012). Proper

organizational supports enable staff to (a) adapt to stressful work conditions; (b) build positive relationships; and (c) build a work environment that features communication, discretion, trust, dignity, and respect (Walinga & Rowe, 2013). Feldt et al. (2013) and Kosny et al (2013) have shown that (a) interactional, (b) distributive, (c) procedural, (d) interpersonal, (e) informational, and (f) organizational justice link to well-being and that staff not treated equitably by their employees can feel disrespected and undervalued, lose self-esteem, and potentially lack organizational commitment.

Organizational justice and fairness relate to employees' perceptions of fairness within the organization and of equitable reward (Kosny et al., 2013; Olejniczak & Salmon, 2014). Interactional justice relates to employees' perceptions of fairness of interpersonal treatment in the distribution of the rewards process (Kosny et al., 2013). Distributive justice relates to employees' perceptions that leaders distribute rewards fairly across the organization (Noblet et al., 2012). Interpersonal justice connects to the perception of fairness in the interpersonal treatment an employee receives (Noblet et al., 2012). Informational justice keeps employees in the loop when distributing resources in a fair and transparent manner (Noblet et al., 2012).

Organizational leaders who value dignity and respect build positive workplace relationships between staff and their managers, colleagues, and customers and fulfill staff's affiliation needs (Fearon et al., 2013). Therefore, the role of the leader is critical in creating a culture that values employees and promotes organizational and individual commitment to a positive work environment (Muijs, 2011). Bass, Jung, Avolio, and Berson (2003) identified the transformational leader as an individual who provides (a)

vision, (b) inspiration, (c) intellectual stimulation, (d) personal attention, and (e) support. Leaders and managers who engage with their team members through coaching and mentoring should command greater levels of commitment (low ERI) through clearer perceptions of relatedness and connectedness from team members (Ladegård, 2011; Olejniczak & Salmon, 2014). Training leaders and managers in supportive leadership should maintain and enhance levels of performance (Schreurs et al., 2012).

Other forms of leadership, such as distributive and collaborative leadership, have come to the fore in recent decades. Distributed leadership leads to organizational improvement and innovation (Muijs, 2011). Leaders using distributed leadership styles often bring people together from all levels and disciplines of the organization to generate a common cause throughout the business (Bolden, 2011; Jones, Lefoe, Harvey, & Ryland, 2012; Kansikas, Laakkonen, Sarpo, & Kontinen, 2012). However, the most effective type of leadership for the complexity of globalization is collaborative leadership (Sheppard et al., 2013). Using a collaborative leadership style builds positive relationships and networks across the organization. Collaborative leadership lends itself to (a) employee involvement and participation, (b) empowerment, (c) communication, (d) collaboration, (e) supporting staff, (f) development, (g) openness, and (h) transparency (Williams, 2012). Furthermore, Maddock (2011) remarked that collaborative leadership facilitates the interactions required to build positive workplace relationships in complex work environments. Collaborative leadership also lends itself to developing networks and partnerships across countries and cultures in the global economy (Maddock, 2011). Collaboration with stakeholders on workplace stress interventions is critical to the

success of the interventions. Such collaboration requires conviction and commitment from managers (McVicar et al., 2013). To face global challenges successfully in a fast-changing world, leaders of organizations must adopt the right leadership model. At the same time, leaders must value their staff by providing them with a workplace environment free of stress.

Clayton (2012) highlighted the impact globalization has on the complexity of organizational leadership as a consequence of (a) shifts in the balance of power; (b) emerging global markets; (c) the global interconnectedness that comes from technological advances; and (d) the combination of religious, territorial, cultural, and political differences. Leaders are constantly facing new challenges at a rate and of an order unimaginable to previous generations of leaders. Leaders face these additional complexities at a time when they need to maintain a workplace environment free of stress. Workplace stress is increasing with global change, and growing numbers of staff have experienced work-related stress and psychiatric morbidity since the mid-1980s (Walinga & Rowe, 2013). Eales-White (2012) identified four key steps in building high-performing teams: (a) creating the right environment, (b) promoting group discovery, (c) harnessing the power of process, and (d) carrying out reviews. Factors that positively affect organizational culture and lead to higher staff morale, improved health and well-being, and, a better bottom line include (a) communication, (b) staff development, (c) coaching, (d) mentoring, (e) leading, (f) inspiring staff, and (g) rewarding staff for effort (Feldt et al., 2013; Holt & Marques, 2012).

Employee engagement refers to some traditional ideas on employee motivation, such as (a) work effort, (b) equitable reward, (c) realistic expectations, (d) organizational commitment, (e) job satisfaction, and (f) work experience; outcomes of employee engagement include (a) increased effort, (b) feeling valued and rewarded, and (c) being passionate about work (Aon Hewitt, 2013). Reduced employee engagement can lead to lower levels of job satisfaction and perceptions of unfair treatment and can give rise to a stressful work environment (Padula et al., 2012). Having employees who engage will make it easier for organizational leaders to reduce workplace stress. Leaders cannot adopt a single solution to ensure employees engage with their work (Aon Hewitt, 2013). However, leaders can increase staff engagement levels by involving staff in developing workplace interventions from the findings of employee engagement surveys (Fearon et al., 2013). Workplace interventions should (a) focus on staff involvement in the decision-making process, (b) build employee satisfaction and trust, (c) create a culture of involvement and contribution, and (d) foster a positive and credible staff voice (Fearon et al., 2013). Organizational commitment to the employee through (a) learning and development, (b) participation in decision making, and (c) job security should lead to staff commitment and enhanced staff well-being (Kosny et al., 2013). Senior leaders who see their role eroding find staff empowerment to be a significant stressor (Sinha & Subramanian, 2012).

McVicar et al. (2013) found that women do not feel empowered to raise workplace stress issues with their managers because of a fear that the managers would put their positions at risk. McVicar et al. also found that women tend neither to embrace

workplace stress interventions nor to reveal mental health problems because they do not trust management sufficiently. In general, insecurity leads employees to act guardedly and behave in a manner that does not contribute to organizational performance (G. Bell, 2013). Lack of community, poor interactions with coworkers, and job insecurity are significant sources of workplace stress (Forcella et al., 2012; Schreurs et al., 2012). Job insecurity can arise from restructuring, innovation, or technological changes. Therefore, coworkers and leaders should support individuals who feel vulnerable and help them to cope with this perceived stressor (Schreurs et al., 2012).

Work–Life Conflict

Social support can also come from outside the workplace in the form of family or friends who may help with work–life conflicts (Fernandes & Tewari, 2012). Demographic and social changes since World War II, including greater numbers of women at work, have changed the roles of men and women in the workforce, which has led to more pressure to be flexible and responsive and to work–life conflict (Brauchli et al., 2011). Across the globe, for employees and leaders of organizations alike, work–life conflict relates to increased workplace stress arising from the globalization of markets and demands for greater productivity and efficiency (A. S. Bell, Rajendran, & Theiler, 2012). If leaders do not match their demands for greater productivity and efficiency with equitable reward and recognition, employees may develop perceptions of high ERI (Allisey et al., 2012). Some of the factors that have led to workplaces operating on a 24/7/365 basis and to increased tensions between work and nonwork life include (a)

globalization, (b) process reengineering, (c) changes in work practices, and (d) new technologies (Chandra, 2012).

In everyday life, individuals operate in many different roles that come with different responsibilities and challenges, which can lead to work–life conflict (Cheng & McCarthy, 2013). Work–life conflict does not have to be about one having supremacy over the other; work–life conflict can be about how work and nonwork responsibilities can coexist in harmony (Lisson, Mee, & Gilbert, 2013). The relationship between work and life is, for example, (a) family friendly, (b) balanced, (c) conflicted, and (d) flexible (Jang, Park, & Zippay, 2011; Murphy & Doherty, 2011).

Individuals have limited time, energy, and resources to deal with their multiple responsibilities; at times, one role can spill over into the other, which gives rise to conflict and high ERI (Cheng & McCarthy, 2013; Feldt et al., 2013). Psychological capital relates to employee well-being, such as when individuals cognitively appraise stressful situations and adapt positively by maintaining resources (Avey, Reichard, Luthans, & Mhatre, 2011; Luthans, Youssef, Sweetman, & Harms, 2013). The term *subjective well-being* refers to how people feel about their life experiences, what is important to them, and their overall satisfaction with life (Fouché & Martindale, 2011). Subjective well-being links with work–life conflict when individuals seek satisfaction in all aspects of their life (Fouché & Martindale, 2011). Employee well-being in a work context refers to (a) job satisfaction, (b) POS, (c) job-related tension, and (d) job-related depression (Siu, 2013). The literature clearly shows that work–life conflict can lead to psychological, physical, and personal issues (Evans, Carney, & Wilkinson, 2013).

Traditionally, the focus of work–life conflict has been on women. However, research now demonstrates that work–life conflict is just as critical an issue for men (Aumann, Galinsky, & Matos, 2011; Matheson & Rosen, 2012; Sánchez-Vidal, Cegarra-Leiva, & Cegarra-Navarro, 2012).

Work–life conflict is the term selected for this study because it encompasses the tension between work, family, and personal responsibilities. Work–life balance is the absence of conflict between work and nonwork life (A. S. Bell et al., 2012). Nonwork roles include (a) parenting, (b) caring for others, (c) leisure, (d) education, (e) volunteering, (f) self-care, (g) exercise, (h) sport, and (i) medical needs (Kossek, Baltes, & Mathews, 2011). Individuals need a balance between work and home life; when work starts to interfere with an individual's personal life, stress levels rise and productivity goes down (Evers et al., 2014). Work–life conflict can lead to negative consequences, such as (a) conflict, (b) interference, (c) interruptions, (d) negative spillover, and (e) high ERI (Carlson, Ferguson, Kacmar, Grzywacz, & Whitten, 2011). Neither employees nor employers benefit from such an outcome. An examination of work–life conflict included the ability of employees to manage the many different aspects of their lives (Demerouti et al., 2014). The main aspects of work–life conflict to consider are (a) time for work and nonwork activities, (b) satisfaction gained from work and nonwork activities, and (c) psychological involvement in work and nonwork activities (Demerouti et al., 2014). Employees need to manage work–life conflict in these three areas to reduce tension and maintain well-being. Work–life conflicts that originate in the workplace have a significantly greater negative impact on work satisfaction than on nonwork satisfaction

and vice versa (Amstad, Meier, Fasel, Elfering, & Semmer, 2011; Shockley & Singla, 2011).

Leaders who are proactive in coping with work–life conflict using work–life policies and strategies create a positive work environment. Specific benefits include (a) employee–company loyalty, (b) a positive attitude among employees, (c) enhanced employee well-being, (d) reduced stress levels in the workplace, and (e) reduced burnout (A. S. Bell et al., 2012). Work–life initiatives can lead to (a) facilitation, (b) enhancement, (c) enrichment, and (d) positive spillover (Grawitch et al., 2013). Work–life policies and strategies are important in organizational life because of their benefits to both employees and employers (Sánchez-Vidal et al., 2012). Workplace initiatives that assist with work–life conflict include (a) flexible working hours, (b) alternative working arrangements, (c) atypical work arrangements, (d) paid or unpaid leave, and (e) access to care and support services (Demerouti et al., 2014). The focus of work–life conflict initiatives is structural and cultural support for employees; such initiatives include (a) job design, (b) job sharing, (c) teleworking, (d) virtual arrangements, (e) reduced workloads, (f) absenteeism policies, (g) child-care assistance, (h) social support, and (i) line manager support (Kossek, Hammer, Kelly, & Moen, 2014). Problems with work–life initiatives have arisen from a lack of management knowledge of and training how to implement these initiatives, often with management giving little thought to business characteristics or needs (Jaoko, 2012; Kossek, Baltes, et al., 2011). Work–life conflict stressors relate to both operational and shop-floor employees and can affect senior managers, whose leaders often expect them to work long hours and be ever present (Murphy & Doherty, 2011).

Role overload can lead to work–life conflict when employees have limited time and resources to manage multiple responsibilities (Matias & Fontaine, 2012). Role overload leads to stress because individuals believe that their managers expect too much of them (Sinha & Subramanian, 2012). The availability of flexible working policies and a culture that values such policies are major determinants of the extent to which organizational leaders retain managers and of the managers' levels of job satisfaction and sense of fairness (Cegarra-Leiva et al., 2012; Jang et al., 2011). Organizational culture has a significant effect on the success of flexible working policies because the culture will determine whether employees and managers feel comfortable requesting flexible arrangements (Jaoko, 2012; Tremblay, 2012). Work–life conflict can lead to (a) a loss of job satisfaction, (b) low organizational commitment, (c) low productivity, (d) poor performance, (e) absenteeism, (f) poor mental and physical health, (g) substance abuse, and (h) dysfunctional non-work-life behavior (A. S. Bell et al., 2012).

With flexible working practices, individual staff members can select their start and finish times to accommodate their nonwork needs, which should benefit an organization (Hancock & Page 2013; Solanki, 2013). Benefits to an organization accruing from flexible working hours that lead to staff autonomy include increased motivation, performance, and satisfaction (Simbula et al., 2012). Job-related stress has a negative impact on staff health (Billing et al., 2014). Access to flexible working hours increases autonomy and motivation levels and moderates the effects of workplace stress (Hancock & Page 2013; Jaoko, 2012; Solanki, 2013).

Social support from colleagues and line managers is a major factor in determining whether staff can manage their work–life conflict and well-being (Demerouti et al., 2014). In conjunction with social support from line management and colleagues, flexible working practices can significantly reduce work–life conflict (Tremblay, 2012). Factors that are critical to staff well-being include (a) social skills, (b) connectivity, (c) social relationships with colleagues, and (d) integration between work and nonwork activities (Fouché & Martindale, 2011). Therefore, by accommodating flexible working hours (management flexibility) and autonomy, the line manager can have a significant impact on the moderation of workplace stress. Line managers with family responsibilities are no more likely to be supportive of flexible working arrangements and autonomy than line managers with no family responsibilities (Jaoko, 2012). Line manager support is critical to the successful implementation of flexible work practices and the reduction of work–life conflict and related stress; researchers have cited the absence of line manager support as a major barrier to implementing flexible work arrangements (Jaoko, 2012).

Line managers often expect employees to prioritize work demands over personal demands, which can give rise to work–life conflict (Sánchez-Vidal et al., 2012). Indeed, line managers do not always apply work–life policies and strategies equally to all individuals. When leaders do implement policies, the organizational actors do not always support the policies (Sánchez-Vidal et al., 2012). Researchers have noted that a transformational leadership style can improve perceptions of work–life conflict, exhaustion, and employee well-being and that organizational leaders should consider this

leadership style and possibly incorporate it into leadership development programs (Munir, Nielsen, Garde, Albertsen, & Carneiro, 2012; Syrek, Apostel, & Antoni, 2013).

The role of colleagues in relation to informal support for coworkers' flexible working hours (colleague or peer flexibility) is critical. If coworkers do not provide informal support to each other, leaders might cancel employees' flexible working arrangements, which can lead to increased levels of workplace stress (Demerouti et al., 2014). Social support may not be as forthcoming as one might think because employees who do not avail of flexible work arrangements may perceive employees who do avail of such arrangements to have less commitment to the job (Kossek, Baltes, et al., 2011). Employees who do not engage in flexible working might think that they have greater workloads than their flexible-working counterparts, which can result in negativity and lack of social support (Sánchez-Vidal et al., 2012). To overcome this, employers should introduce flexible working policies for all elements of the workforce, such as (a) family, (b) single, (c) mature, (d) management, and (e) diversity (Kim & Wiggins, 2011). Employers should also note that some employees are reluctant to integrate work and nonwork issues, and when they do integrate them, work–life conflict can arise (Wayne, Casper, Matthews, & Allen, 2013).

Many specific issues arise when examining work–life conflict, including the impact of returning to work after maternity leave. Employees who are new mothers can (a) experience conflict between managing work and managing the best interests of the child, (b) feel inadequate as a mother, and (c) struggle to maintain their self-esteem (Alstveit, Severinsson, & Karlsen, 2011). Employers must be conscious of the demands

on employees who are new mothers and must support their transition back to work to manage any work–life conflict that might arise, which may help to maintain job satisfaction and performance (Alstveit et al., 2011).

Researchers have associated work–life conflict with burnout. Burnout is a serious issue for employers because it can be difficult to address, can be harmful to employees' health and well-being, and can result from high ERI (Olejniczak & Salmon, 2014; Sonnentag, Arbeus, Mahn, & Fritz, 2014). Brauchli et al. (2011) found that time-based work–life conflict significantly related to burnout. Primary sources of workplace stress and burnout include (a) red tape, (b) bureaucracy, (c) paperwork, and (d) meetings (Matheson & Rosen, 2012). Burnout is a phenomenon related to the physical, emotional, and mental exhaustion that is a direct response to prolonged exposure to chronic workload stressors (Brauchli et al., 2011). Work–life conflict directly relates to burnout, but social support can moderate its effects (Umene-Nakano et al., 2013). Strategies to cope with burnout include (a) exercising, (b) receiving social support, (c) taking part in hobbies or leisure activities, (d) taking time off, (e) eating well, (f) relaxing, (g) detaching from work, (h) taking personal time, (i) sleeping, and (j) meditating (Warren, Schafer, Crowley, & Olivardia, 2012).

Excessive hours worked can lead to work–life conflict, particularly if employees (a) work long hours for additional salary, (b) have a large workload, (c) are workaholics, or (d) work long hours to show commitment and loyalty (Chandra, 2012; Munir et al., 2012). Managers and professionals are more susceptible to work overload because they work longer hours than most other work groups (Tremblay, 2012). According to the

Federation of German Trade Unions, 63% of German employees have felt increased work intensity and have experienced time pressure (Deutscher Gewerkschaftsbund, 2010). Time pressure is a significant and serious workplace stressor and has a strong negative relationship with employee strain (Syrek et al., 2013). Evans et al. (2013) concluded that men with children work longer hours than men without children, even though Aumann et al. (2011) noted that men would rather work less and spend more time with their families. Employers must monitor hours worked and help individuals address their work and nonwork responsibilities for the benefit of both the individual and the organization. However, financial gain and material rewards are often the means used to alleviate issues relating to work–life conflict (Chandra, 2012).

Financial concerns mean that many households have dual earners, which gives rise to the potential for work–life conflict for both men and women (Matias & Fontaine, 2012). Recent economic changes have meant that, because their primary work roles are no longer available, men can now have different work patterns and practices, including part-time working, underemployment, or unemployment. This leads to different family role responsibilities, which can lead to work–life conflict (Sobiraj, Korek, Weseler, & Mohr, 2011). Men in the traditional role of breadwinner are likely to experience work–life conflict and high ERI as a result of a perceived loss of pay, slow career progression, or negative social relationships (Allisey et al., 2012; Feldt et al., 2013; Giannikis & Mihail, 2011).

Employers often find it difficult to find the right balance between accommodating flexible work arrangements and eliciting performance from workers to extract value for

money for the business (Kossek, Baltes, et al., 2011). Not all industries are the same, and some may be more conducive to implementing work–life initiatives than others (Kossek, Pichler, et al., 2011; Matheson & Rosen, 2012; Tremblay, 2012; J. Wang & Verma, 2012). Although some employers have excellent work–life policies, they do not all encourage the use or full implementation of such policies, which renders the policies ineffective (Chandra, 2012). In many organizations, a knowledge gap around work–life policies and strategies can result in employees not availing of such schemes, which can result in leaders missing opportunities to strengthen employees' commitment and loyalty to the organization, improve employees' performance, and increase social exchange (Sánchez-Vidal et al., 2012). Employers need to do more than merely promote flexible working policies. Without the support of senior and line managers, the use of such policies will not improve (Jaoko, 2012; Tremblay, 2012). Furthermore, some of these initiatives may be very difficult to administer and monitor, which can create reluctance among employers to implement them (Kossek, Baltes, et al., 2011). The motivation and sense of equity of employees who do not avail of these initiatives is a concern for organizational leaders because employers must motivate and value the workforce (Kossek, Baltes, et al., 2011). However, employers who integrate flexible working arrangements into the business can reap rewards such as (a) becoming an employer of choice, (b) attracting better talent, (c) retaining employees, (d) gaining greater employee commitment, (e) promoting greater job satisfaction, and (f) making cost savings (Kim & Wiggins, 2011; Kelly et al., 2014). Where work–life policies are readily available, individuals are responsible for managing their (a) fulfillment at work, (b) personal life,

(c) family life, and (d) societal citizenship. Responsibility for achieving work–life harmony cannot rest solely with employers (Chandra, 2012). Compared with their full-time colleagues, employees who work part-time are more productive and bring more intensity to their job (Kelly et al., 2014).

Work–life conflict has been the subject of social debate in the United States and European Union since the mid-1980s; employees, employee representative organizations, and social groups have urged governments to develop work–life initiatives and strategies (Tremblay, 2012). In the European Union, legislation through EU directives transcribed into member state law has been a significant factor in developing flexible working arrangements to drive economic and social progress (Kossek et al., 2014). Socially sustainable work has become a feature of work in the European Union (EU) due to changes in fertility, absenteeism, and rising levels of workplace stress and on foot of the EU debate around the pursuit of economic growth at the expense of social issues and quality of life (Chandra, 2012). In a recent study, men who spent more time with their families as part of their work–life strategy reported a better quality of life (Aumann et al., 2011). Each member state has taken a different approach to the implementation of EU directives because employment practices differ in each state. The Irish government has taken a strong, proactive approach to implementing flexible work arrangements across Irish businesses and industry, and the EU sees Ireland's actions in this area in a positive light (Murphy & Doherty, 2011). The U.S. government has not been as proactive as the European Union in introducing work–life directives because it favors a voluntary approach (Tremblay, 2012). In 2011, 36% of employees in the United States were happy

with their flexible work arrangements; this figure was down from 42% in 2009 (Clay, 2011). Despite the legislation and substantial research into work–family conflict, the initiatives neither significantly improved employees' lives nor reduced their work–family stressors (Allen, Johnson, Kiburz, & Shockley, 2013; Kossek, Baltes, et al., 2011). Work–family conflict affects the well-being of employees through (a) burnout, (b) depression, (c) psychological stress, (d) poor physical health, and (e) family tension (Allisey et al., 2012; Feldt et al., 2013; Kossek, Pichler, et al., 2011).

Current issues for staff in third-level institutions include (a) workplace stress, (b) health problems, (c) stress-related illness, (d) job dissatisfaction, and (e) work–life conflict. High levels of workplace stress can increase levels of work–life conflict and negatively affect the well-being of HEI employees such as academics and managers (A. S. Bell et al., 2012; Shin & Jung, 2014). The globalization, restructuring, and massification of tertiary education in the 21st century has raised levels of workplace stress for HEI employees and has lowered organizational performance, which has negatively affected employees' nonwork life (Shah, 2013). Reasons for increased pressure and workplace stressors in HEIs include (a) reductions in government funding, (b) increased workloads, (c) working excessive hours, (d) growth in student numbers, (e) pressure to publish, (f) focus on quality of teaching, (g) pressure to win research funding, (h) new technology, (i) increased national and international competition, and (j) pressure to merge institutions (A. S. Bell et al., 2012). Juggling all these different tasks has led to an increase in workplace and work–life conflict stressors in HEIs (Shah, 2013). Although researchers of workplace stress and employee well-being have focused on many

professions in Europe, the United States, and Australia, researchers have undertaken very few studies on HEIs and academic employees (A. S. Bell et al., 2012). This study can help to close that gap.

Workplace Stress Interventions

In this study, I focused specifically on the correlations between employees' perceptions of social support, work–life conflict, job performance, and workplace stress, and I then considered whether different staff groups have different perceptions of social support, work–life conflict, job performance, and workplace stress. Organizational-level interventions can have the most significant impact in dealing with workplace stress (Augustsson et al., 2014; Nielsen & Randall, 2013). Therefore, understanding the relationships between social support, work–life conflict, job performance, and workplace stress should help leaders to develop workplace stress interventions at the organizational level.

Researchers have not cohesively integrated work design research and theory with studies of interventions for workplace stress; in particular, researchers have found that work design research and theory do not address the benefits of employee health and organizational health (Tetrick & Campbell-Quick, 2011). In this section, I examined interventions for workplace stress that focus not just on the prevention of injury and illness but also on the individual employee and the health of the organization. Interventions that leaders introduce to cope with stress at work are primarily efforts that are real, cognitive, and designed to alleviate and resolve the causes of workplace stress through the ERI model (Allisey et al., 2012; Billing et al., 2014; Feldt et al., 2013). Biron

and Karanika-Murray (2014) have shown that research on interventions has mainly focused on understanding *if*, but claim that an understanding of *how*, *why*, and *when* in relation to using interventions to reduce workplace stress would be more helpful.

The three main types of interventions are (a) primary, (b) secondary, and (c) tertiary. Of these, primary is the preferred type of intervention because the focus is on prevention rather than cure (Tetrick & Campbell-Quick, 2011). Preventive interventions are much cheaper than interventions used by leaders to rectify a problem (van Scheppingen et al., 2013). Leaders use secondary interventions with individuals who are at risk and use tertiary interventions with individuals who have experienced workplace stress and are looking to restore their health (Tetrick & Campbell-Quick, 2011). Workplace stress interventions and stress management are more likely to work for the majority of staff if they use the interventions to address the sources of workplace stress (McVicar et al., 2013). Psychosocial interventions are becoming more popular and can be beneficial to the individual and the organization provided that staff help design and implement the strategies of the interventions (McVicar et al., 2013). Interventions that result from significant collaboration have been successful and have had positive outcomes (McVicar et al., 2013). Three possible outcomes for workplace stress interventions are (a) not coping, (b) coping, and (c) thriving. Not coping denotes negativity and despair on the employee's part, coping refers to the adequate management of the workplace stressor, and thriving occurs when organizational leaders address the situation and reframe an employee's mind-set to a positive outlook (Walinga & Rowe, 2013).

In a review of 13 studies, Wolever et al. (2012) noted that practicing yoga can potentially help to reduce depression and anxiety. There is proof that training in meditation, yoga, and similar practices helps reduce perceived stressors and enhance coping mechanisms (Christian & Glaser, 2012). In fact, the regular practice of meditation, yoga, and similar pursuits could have significant health benefits (Christian & Glaser, 2012). In randomized control trials, researchers have shown that using mind-body techniques to reduce workplace stress gives rise to positive results for self-reported state of mind, well-being, and psychological distress (Hartfiel, Havenhand, Khalsa, Clarke, & Krayer, 2011; Limm et al., 2011).

Wolever et al. (2012) identified two intervention programs for coping with workplace stress: the Mindfulness-Based Stress Reduction program and the Mindfulness-Based Relapse Prevention program. Following the Mindfulness-Based Stress Reduction program can help to reduce stress, chronic pain, and some psychological symptoms (Wolever et al., 2012). The focus of the Mindfulness-Based Relapse Prevention program is on addictive behavior (Bowen, Chawla, & Marlatt, 2011). The purpose of mindfulness-at-work programs is to develop skills for coping with workplace stress, work–life balance, and self-care (Wolever et al., 2012). Results have shown that mindfulness-based interventions (a) have a significant impact on brain function; (b) improve psychological and cognitive well-being; and (c) have a positive influence on energy, disposition, quality of life, perceived stress, tiredness, depression, anxiety, and anger (Baer, Carmody, & Hunsinger, 2012; Holzel et al., 2011; Wolever et al., 2012). Mindfulness-based interventions improve health outcomes by reducing an individual's susceptibility to

stress-related illness (Christian & Glaser, 2012). Stress intervention programs that include a focus on techniques for managing stress can improve employee health, reduce costs related to illness and absenteeism, and improve the productivity of the workforce (Coulter et al., 2013; Larsson et al., 2014; O'Donnell, 2013; Wolever et al., 2012).

Staff involvement is critical to the success of organizations. All successful innovative initiatives involve engagement with (a) senior managers, (b) middle managers, (c) frontline managers, (d) supervisors, and (e) staff (McVicar et al., 2013). Without engagement and support throughout the organization, staff will resist innovations, which will be detrimental to the organization's success or hinder it in ways that make it less effective (Leong & Anderson, 2012). Simbula et al. (2012) noted that organizational change could increase workplace stress, particularly in an era of global competition and technological advances. In a complex, interconnected, and rapidly changing global economy, organizational leaders must prioritize employee engagement and the reduction of workplace stress (McVicar et al., 2013). A recent report for Aon Hewitt (2013) shows that global employee engagement levels are up from 58% to 60%, which means 40% of employees globally remain disengaged. The Aon Hewitt researchers found improvement was most significant in Europe (up by 5%) and least in the United States (down by 3%).

The researchers of the Aon Hewitt (2013) report also showed that pay is one of the main factors in determining levels of employee engagement (ERI) and that employee engagement is a leading indicator of organizational growth. McVicar et al. (2013) noted that organizational leaders who invest in employee engagement will reap the rewards of improved performance, efficiency, and effectiveness. Leaders' use of traditional aspects

of employee motivation such as (a) work effort, (b) organizational commitment, (c) job satisfaction, and (d) work experience can increase employee engagement in terms of making more effort, feeling passionate about work, and feeling more valued (Leong & Anderson, 2012). Leaders of engaged employees find it easier to cope with workplace stress and reduce resistance to change (McVicar et al., 2013). Leaders should develop their skills so that they can help employees to make sense of change, thereby removing some of the ambiguity and uncertainty that surrounds it (Johansen, Aggerholm, & Frandsen, 2012). A motivated, committed, and healthy workforce is a great asset to any organization and can be a source of competitive advantage (Lerner et al., 2013; van Scheppingen et al., 2013). Leaders of a large percentage of Fortune 500 and Global 1,000 companies have acknowledged the detrimental effects of workplace stress and have put in place employee assistance programs to help employees and their families cope with the consequences of workplace stress (Billing et al., 2014).

Leaders sometimes reward employee effort with learning and development opportunities to enable employees to cope with the many challenges of a fast-changing business environment and new technologies (Allisey et al., 2012; Feldt et al., 2013). Continual development must include the development of new career paths (Simbula et al., 2012). If employers do not invest in professional growth and the development of new skills and career paths, employees will feel (a) insecure, (b) frustrated, (c) inadequately skilled for new technologies, and (d) unable to cope, which will lead to workplace stress (Pridgeon & Whitehead, 2013; Simbula et al., 2012). Developing the skills of employees will not only help reduce workplace stress but also lead to (a) better employee

engagement, (b) improved efficiency, (c) higher productivity, and (d) better organizational performance (Pridgeon & Whitehead, 2013; Simbula et al., 2012).

When designing workplace stress interventions, organizational leaders must consider the extent to which employees are likely to participate in and engage with the intervention programs (Olejniczak & Salmon, 2014). Human resources practitioners can take a proactive role in creating a healthy workforce and reducing workplace stress by implementing workplace stress audits and action research (Walinga & Rowe, 2013). Professionals with responsibility for implementing workplace stress interventions have observed that the employees who would benefit most from the interventions are those who will probably not participate in or engage with the intervention (Lerner et al., 2013). Therefore, coping with this issue is of critical importance.

One suggested way of ensuring greater participation in interventions, particularly by those who would most benefit from them, is to include employees in the design and implementation of the interventions (Lerner et al., 2013). According to Soler et al. (2010), the assessment of health risks with feedback is a useful intervention for workplace stress, particularly when health education and health promotion activities complement the assessment. Soler et al. reported that scoring high on the assessment of health risks was a factor in the willingness of individuals to participate in interventions. Therefore, the use of assessments of health risks with feedback coupled with health education and health promotion activities would seem to be a sensible approach to take when motivating employees to participate in workplace stress interventions. In addition, designers of workplace stress interventions must consider the following factors to ensure

the success of the programs: (a) workload, (b) time, (c) scheduling, (d) cost to employee, (e) criteria for entry, (f) job level, (g) organizational culture, (h) age, (i) gender, and (j) leadership (management) support (Lerner et al., 2013). Researchers have shown that leaders of organizations often neglect to assess and manage the business impact of interventions (Cheng & McCarthy, 2013). Therefore, designers of interventions must ensure leaders manage and evaluate all interventions to confirm that benefits have accrued to the individual and the organization (van Scheppingen et al., 2013). Organizational leaders should see the business benefits of interventions not only in terms of cost reductions and higher productivity but also in terms of the value generated by innovative and creative employees and from becoming an employer of choice (van Scheppingen et al., 2013).

The coping strategy selected by an individual can depend on the perceived resources available to the individual (Brotheridge, Lee, & Power, 2012). Coping strategies can occur in two phases: (a) the assessment stage to determine if the situation is threatening and (b) the evaluation of one's ability to cope with the stressor and the selection of a coping mechanism (Cheng & McCarthy, 2013). Coping resources that may be available to the individual include (a) psychological, (b) social, (c) leadership, and (d) organizational support (Brotheridge et al., 2012). Coping strategies that relate to work–life conflict often fall within the remit of the individual rather than the organization, such as when individuals outsource housework or seek assistance from family members or in-laws rather than from the organization (Chandra, 2012; Matheson & Rosen, 2012). Coping strategies sometimes take the form of working harder or longer, which can make

the problem worse and can lead to presenteeism (Walinga & Rowe, 2013). Individuals often deploy the avoidance coping mechanism, which is a strategy for distancing oneself physically and cognitively from the workplace stressor (Cheng & McCarthy, 2013). Strategies for leaders to consider when selecting workplace stress interventions include cognitive action strategies to understand the problem and assign appropriate responsibility and sense-making strategies to cope with unpredictable situations that require new creative interventions (Walinga & Rowe, 2013). Prevention-focused workplace stress interventions are essential for improving employees' coping skills for coping with the demands of modern organizations (Safaria, 2014).

Psychological disengagement refers to the practice of switching off or mentally disengaging oneself as a mechanism for managing, coping with, or avoiding stress (Cheng & McCarthy, 2013). Some commentators have found avoidance coping to be negative (Andreassi, 2011), whereas others have found it to be positive (Rantanen, Mauno, Kinnunen, & Rantanen, 2011). Two different schools of thought persist in relation to psychological disengagement: some argue that it exacerbates the problem and others view it as an adaptive mechanism (Cheng & McCarthy, 2013). A stressful experience can have different results depending on an individual's interpretation of the stressor. For example, an employee's experience in a stressful situation can give rise to poor performance or to opportunities for (a) growth and development, (b) learning how best to perform under stress, and (c) determining what factors promote a change in stress perception (Walinga & Rowe, 2013). Cognitive avoidance of the stressor can be

beneficial because it allows the individual to replenish depleted resources to focus on various responsibilities (Cheng & McCarthy, 2013).

The focus of early attempts at return-to-work interventions was the clinical aspects of the individual and their injuries, and clinicians and researchers gave little consideration to the other parties in the relationship, such as the employer, manager, or occupational health practitioner (Barling & Griffiths, 2011; Kosny et al., 2013). Workplace strategies for returning to work are more effective than medical interventions delivered in a clinical context (Kosny et al., 2013). Leaders of organizations can employ the following workplace strategies to accommodate an employee's return to full health and to demonstrate fairness, goodwill, and trust by the manager: (a) early contact by the manager with the employee during the absence, (b) contact by the manager with a health practitioner, (c) reduced working hours, (d) flexible rosters, and (e) light duties (Kosny et al., 2013).

Health is a state of physical, mental, and social well-being and not just the absence of illness (Siu, 2013). Physical well-being programs provide employees with strategies to manage workplace stress, cope with work–life conflicts, and develop a healthy outlook (Demerouti et al., 2014). Physical well-being programs coupled with management development programs that target (a) team development, (b) empowerment, (c) time management, (d) mentoring, and (e) coaching can moderate workplace stress (Demerouti et al., 2014). Physical well-being programs supported by employee assistance programs (C. L. Cooper, Dewe, & O'Driscoll, 2011) and occupational health and safety leadership are key tools when coping with workplace stress (Mullen & Kelloway, 2011).

Figure 2 includes a framework for interventions designed to promote and protect employee health and well-being and highlights the impact that organizational policy and procedures, job tasks, and the behavior of managers and coworkers on employee experiences in the workplace (Heaney, 2011). Interventions at these levels will help employees cope with workplace stressors. The order of the interventions is important because lower level interventions might not be possible without the existence of higher level interventions. For example, organizational pay policy can affect performance appraisal and the perception of fair reward for effort (ERI; Estes, 2011; Heaney, 2011; Olejniczak & Salmon, 2014).

Transition and Summary

The objective for this quantitative correlational study was to examine the relationships between perceived workplace stress, perceived social support, perceived work–life conflict, and perceived job performance while controlling for staff category, direct reports, age, and gender. A secondary objective was to determine whether different staff groups have different perceptions of social support, work–life conflict, job performance, and workplace stress as measured by the results of the ASSET test. In this study, I examined to what extent correlations exist between employees' perceptions of social support, work–life conflict, job performance, and workplace stress. The results of the study may provide leaders with an understanding of the relationships between social support, work–life conflict, job performance, and workplace stress. Leaders should be able to use this knowledge to develop and implement organizational strategies to help reduce work-related stress and the costs associated with low productivity, absenteeism,

and presenteeism, thereby preserving scarce financial resources and improving overall organizational performance.

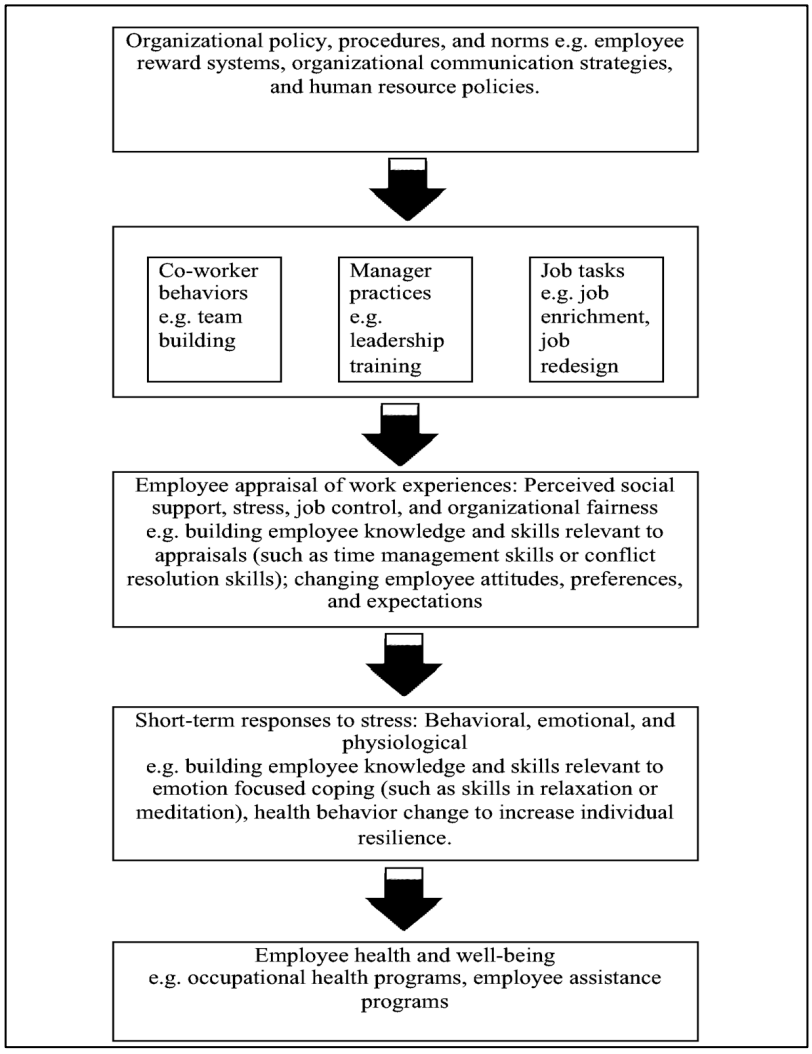

Figure 2. A framework for interventions. Adapted from "Worksite Health Interventions: Targets for Change and Strategies for Attaining Them," by C. A. Heaney. In *Handbook of occupational health psychology* (2nd ed., p. 321), in J. Campbell-Quick & L. E. Tetrick (Eds.), 2011, Washington, DC: American Psychological Association.

In Section 1, I (a) specified the research method and design appropriate to this study, (b) introduced the research population, (c) reviewed relevant literature, and (d) outlined the theoretical framework for the study. Section 2 includes a detailed description

of the study's (a) research methodology, (b) population, (c) sample, (d) data collection tools, and (e) techniques for the data analysis. In Section 3, I give an overview of the study and present and analyze the findings of the research. I provide answers to the research questions and tabulate and explain the hypotheses test results, including the statistical analysis results. I then provide interpretations of the results and present (a) applications to business practice, (b) implications for social change, (c) recommendations for action, and (d) recommendations for further research. I conclude with some reflections and a summary of the study.

Section 2: The Project

This section of the study includes a more detailed description of the research methodology, as well as information on the study's (a) population, (b) sample, (c) data collection tools, and (d) techniques for the data analysis. The section also includes an outline of my role as the researcher and ethical considerations for the study. I then provide interpretations of the results and present (a) applications to business practice, (b) implications for social change, (c) recommendations for action, (d) recommendations for further research (e) reflections on the doctoral process, and (f) a summary of the study.

Purpose Statement

The purpose of this quantitative correlational study was to provide educational leaders with the information they need to examine and understand the relationships between perceptions of social support, work–life conflict, job performance (independent variables), and workplace stress (dependent variable) while controlling for staff category, direct reports, age, and gender (covariates) in an HEI in Limerick, Ireland. I identified the stress profiles of various staff groups and, subsequently, determined whether different staff groups have different perceptions of social support, work–life conflict, job performance, and workplace stress. I conducted a multiple regression analysis using three independent variables, four covariates, and the dependent variable.

The results from this study can provide leaders with additional information and an understanding of the relationships between social support, work–life conflict, job performance, and workplace stress. This knowledge should enable leaders to put in place mechanisms to reduce work-related stress, which could preserve scarce financial

resources and improve organizational performance (Burton et al., 2012; Nasr, 2012; Spurgeon et al., 2012). Application of the findings of this study could contribute to a reduction in employees' physical ill health and to an improvement in their psychological well-being (Walinga & Rowe, 2013).

Role of the Researcher

Researchers must identify their biases, values, and personal backgrounds and how these can affect their interpretation of data (Burke-Johnson, 1997; D. R. Shaw & Allen, 2012). Burke-Johnson (1997) noted that researchers are susceptible to discovering what they want to discover and documenting the results accordingly. Researchers can influence a study by allowing their personal views to influence the collection, interpretation, and presentation of the data. A key strategy in understanding and preventing researcher bias is reflexivity, wherein researchers critically analyze their potential biases (Burke-Johnson, 1997; D. R. Shaw & Allen, 2012).

Personal work experiences may have shaped my perception of workplace stress in Irish HEIs. I am from Ireland and currently work in an Irish HEI. I am a professional who has gained considerable experience working in the higher education, health, and telecommunications sectors and in multinational environments. I am currently a HR practitioner and senior manager (HR director). My research and work experience leads me to believe that not all leaders and managers in Irish HEIs understand workplace stress. I believe that leaders and managers do not consider workplace stress when making work-related decisions. I also believe that leaders and managers are largely passive about workplace stress, which means that change is either extremely slow or nonexistent.

Although I do not think that leaders and managers are completely unaware of workplace stress, I believe that they do not fully understand it or the impact it can have on employees.

Researcher characteristics and interactions between researchers and participants can give rise to biases (Muskat, Blackman, & Muskat, 2012; D. R. Shaw & Allen, 2012; Xu, 2012). Types of researcher interaction bias include reactions related to the psychological, physical, and other characteristics of the researcher, such as race, age, and gender, and reactions related to the perceived background characteristics of the researcher (Xu, 2012). Xu (2012) noted that the following considerations could potentially give rise to researcher interaction bias: (a) less interaction, (b) more interaction, (c) more observational methods, (d) computer administration, (e) number and diversity of data collectors, (f) multiple data sources, (g) pretesting, and (h) training. Researchers should try to adopt the research approach that is most appropriate to the circumstances they face (D. R. Shaw & Allen, 2012). I did not envisage encountering any interaction bias with the population because I surveyed the entire staff population of the subject institution with a confidential online survey instrument. Given that participation was voluntary, my role in the organization was unlikely to influence the participants. To minimize the possibility of interaction bias further, I collected the data in such a way that ensured individuals and small groups would remain unidentifiable. To reduce the potential of researcher bias, I used the data from ASSET for the SPSS multiple regression analysis.

Participants

The participants for this doctoral study were the full-time and part-time academic, research, and support staff of an Irish HEI. I signed a data use agreement (see Appendix B) with the subject institution, which gave me access to the employee population through the subject institution's standard operations. The agreement also covered access to institutional data sets. The institution's staff included (a) academic staff (teaching assistants, lecturers, senior lecturers, and professors), (b) researcher staff (research assistants, postdocs, research fellows, and senior research fellows), and (c) support staff (leaders, managers, information technology professionals, librarians, administrators, laboratory technicians, grounds staff, and catering staff). Participants of the study voluntarily completed the confidential online survey.

The leadership of the selected institution agreed that I could contact all staff about the survey via the institution's e-mail system. In addition, the president of the selected institution e-mailed all members of staff to request that they participate in the survey because the findings of the research could potentially help the institution's leaders to cope proactively with workplace stress. Following the president's e-mail, I sent e-mails to all members of staff inviting them to participate in the survey and providing them with a link to the survey (ASSET). I used the survey's landing page to provide participants with answers to frequently asked questions about the nature and purpose of the study, to give participants assurances that their responses to the survey would be anonymous and confidential, and to advise them that submitting their responses meant that they were giving their informed consent to participate. The text of the landing page and frequently

asked questions are in Appendix C. In agreement with the leadership of the selected institution, I opened the survey on February 9 and closed it on February 28, 2015.

Research Method and Design

In this doctoral study, I attempted to determine whether relationships existed among perceived social support, perceived work–life conflict, perceived job performance, and perceived workplace stress. I described and assessed levels of self-reported stress and examined their variability across various job and demographic factors in an Irish HEI. By using the quantitative correlational research design, which is the most appropriate approach for researchers to use to examine relationships among variables, I was able to identify possible answers to the research questions by analyzing primary and secondary data (Marais, 2012). According to Howitt and Cramer (2011), quantitative research is a formal, objective, systematic process in which researchers can employ numerical data to acquire data and facts about a phenomenon under investigation. The three key characteristics that relate to quantitative research are (a) objectivity, (b) generalizability, and (c) numbers. In this doctoral study, I included all three characteristics and used a quantitative correlational research design to analyze the relationships between perceived social support, perceived work–life conflict, perceived job performance, and perceived workplace stress.

In the analysis of the findings, I used correlation tests to make predictions about the population of the study (Marais, 2012). An experimental or quasi-experimental approach was not appropriate for this doctoral study because of the nature of the phenomenon under investigation. Researchers use experimental and quasi-experimental

studies to determine the causal impact of an intervention on the target population. Quasi-experimental studies lack the element of random assignment to treatment or control groups (D. R. Shaw & Allen, 2012). The significant difference between correlational designs and experimental designs involves causation; correlational research designs do not imply causation. The correlational research design tests for statistical relationships among variables (Bernard & Bernard, 2012). Researchers measure the variables of a large number of cases to determine a relationship exists among the variables. Correlational research design involves testing the null hypothesis to determine whether the observed relationship is statistically significant. The determination of a statistical relationship does not imply that one variable causes the other or vice versa (Lugtig et al., 2012). Therefore, a quantitative correlational research design is an appropriate research method to use when analyzing the relationships between perceived social support, perceived work–life conflict, perceived job performance, and perceived workplace stress and determining whether different staff groups have different perceptions of social support, work–life conflict, job performance, and workplace stress.

Research Method

I selected a quantitative correlational research design methodology for this doctoral study because that particular research design was the most appropriate one for generating rich data related to the research question. The research questions for the study were as follows:

RQ1: What are the relationships between employees' perceptions of social support, work–life conflict, job performance, and workplace stress while

controlling for staff category, direct reports, age, and gender in an Irish HEI?

RQ2: What effects do the different levels of (a) staff category, (b) direct reports, (c) age, and (d) gender have on respondents' perceptions of workplace stress?

I explored quantitative, qualitative, and mixed methods research methodologies before deciding on a quantitative correlational design. A quantitative research method is suitable for examining relationships among variables that explain, predict, or control a phenomenon (Lugtig et al., 2012). Researchers using a qualitative research design seek to answer the questions *how* and *what* to address research questions. Through their research design, researchers pose a central question to explore the central phenomenon based on the participants' perspective (Lugtig et al., 2012). The mixed methods research design encompasses both qualitative and quantitative methodologies, and researchers often describe it as employing all available research methods to examine a central phenomenon (Bernard & Bernard, 2012). I did not use a qualitative design for this study because qualitative methodologies are not appropriate for examining variables and covariates (Bernard & Bernard, 2012). I did not select a mixed methods approach because the qualitative aspects were not appropriate for the quantitative examination of variables and covariates (Bernard & Bernard, 2012).

I used a quantitative methodology. Researchers can collect quantitative data from various sources, such as surveys, true or quasi-experimental designs, and data archives (Bruce et al., 2013). The quantitative method involves research questions and hypotheses

(Bernard & Bernard, 2012). Researchers use research questions to examine relationships between independent and dependent variables (Bruce et al., 2013). Hypotheses are the basis for testing the expected relationship between independent and dependent variables (Bernard & Bernard, 2012). Quantitative hypotheses are predictions of the outcomes of research results (Thomas-Maddox, Richmond, & McCroskey, 2012). Quantitative methods involve developing hypotheses or quantitative questions. A quantitative methodology was appropriate for this study because with it, I was able to compare, relate, and describe the responses of the participants (employees of an Irish HEI) in the context of the independent variables perceived social support, perceived work–life conflict, and perceived job performance and the dependent variable perceived workplace stress (Thomas-Maddox et al., 2012). Furthermore, the quantitative methodology was appropriate for describing and assessing levels of self-reported stress and examining their variability across various job and demographic factors.

Research Design

Before deciding on a correlational design for this research project, I examined a number of research designs, including (a) quantitative descriptive research, (b) experimental research, (c) causal-comparative research, and (d) correlational research. The challenge for all researchers is to select the design that allows them to gain an understanding of the central phenomenon of a study. Selecting the appropriate method and design is critical because using an incorrect design will give rise to research findings and conclusions that are not credible.

A quantitative descriptive research design requires researchers to collect data through (a) surveys, (b) interviews, (c) observations, or (d) data reviews. Researchers who employ quantitative descriptive designs seek to describe and report on the factual situation discovered in the investigation. Researchers who use quantitative descriptive research designs can potentially generate new ideas or theories based on the facts they discover in their studies (Crosby, DiClemente, & Salazar, 2011). For this doctoral study, I could have used a quantitative descriptive research design to describe (a) levels of self-reported stress, (b) staff category, (c) direct reports, and (d) demographic factors. However, a quantitative descriptive research design was not sufficient for examining the relationships between the independent variables, the covariates, and the dependent variable in this study.

Causal-comparative researchers seek to explain the cause-and-effect relationship between two or more variables. Researchers who use a causal-comparative design may choose to explore the effects, causes, or consequences of a phenomenon. As the name suggests, causal-comparative research involves making comparisons between the subjects under investigation while implying causation at the same time (Bernard & Bernard, 2012). For example, a researcher may wish to compare the outcomes of a traditional physical classroom experience with the outcomes of an online classroom experience. Researchers employing causal-comparative research techniques do not manipulate variables and must be conscious of other factors that might affect the outcomes if they are to imply causality (Bernard & Bernard, 2012). Causal-comparative research was not

appropriate for this doctoral study because I did not seek to make comparisons among randomly assigned treatment groups.

Researchers commonly use experimental research designs in the social, health, and hard sciences to manipulate and control experiments to understand causal processes (Lugtig et al., 2012). Researchers usually design experiments to identify the causal relationships affecting a phenomenon. The researchers manipulate one or more variables and controls and then measure any impact or change on the other variables. Research tests can be either true experiments or quasi-experiments. Quasi-experimental studies lack the element of random assignment to treatment or control (Thomas-Maddox et al., 2012). Researchers use experimental and quasi-experimental studies to determine the causal impact of an intervention on the subject population. Based on the research questions that were central to this doctoral study, an experimental approach and a quasi-experimental approach were not feasible.

In this study, I attempted to determine the extent and nature of the relationships between perceived social support, perceived work–life conflict, perceived job performance, and perceived workplace stress. I described and assessed levels of self-reported stress and examined their variability across various job and demographic factors in an Irish HEI. The quantitative correlational research design was the most appropriate approach to use to examine the variables. The correlational research design is suitable for testing for statistical relationships among variables (Bruce et al., 2013). Researchers test a large number of cases to determine if relationships exist among the variables. Correlational research design involves null-hypothesis testing to determine if the

observed relationship is statistically significant. However, a significant statistical relationship does not imply that one variable causes the other or vice versa (Bernard & Bernard, 2012). Therefore, for this study, a quantitative correlational research design was the most appropriate design to use to (a) analyze relationships between perceived social support, perceived work–life conflict, perceived job performance, and perceived workplace stress; (b) assess levels of self-reported stress; and (c) examine the variability of these levels across job and demographic factors.

Population and Sampling

The population for this study was the entire employee population of an Irish HEI (N = 1,420), which included full-time and part-time academic, research, and support staff. I selected the subject institution because its management team wished to investigate the relationships between social support, work–life conflict, job performance, and workplace stress. The management team fully supported this study. The independent variables in this quantitative correlational design were measures of social support, work–life conflict, and job performance. The dependent variable was a measure of workplace stress. The covariates were measures of staff category (four levels: academic, research, support, other); direct reports (five levels: none, 1-5 people, 6-10 people, 11-20 people, over 20 people); age (five levels: 25 years and under, 26-35 years, 36-45 years, 46-55 years, 56 years and over), and gender (two levels: female, male). For the covariates, I created dummy variables to stratify data into mutually exclusive categories such as male or female. Researchers use dummy variables in instances where a nominal variable (covariate) has two levels or more. Based on the formula k - 1, where k is the number of

levels of the original variable, I created 12 dummy variables. Therefore, the total number of predictor variables was 15 (three independent and 12 dummy variables).

I used the power analysis tool G*Power to calculate the sample size (Faul, Erdfelder, Buchner, & Lang, 2009). Using a two-tailed test for G*Power's multiple regression random effects model, I needed a minimum sample size of 92 participants to detect a coefficient of determination (R^2) of 0.3, an alpha level of 0.05, 15 predictor variables, an effect size (f^2) of 0.02, and a desired power of 0.95. For multiple regression linear models, where f^2 is the effect size measure, Cohen (1992) suggested that f^2 values of 0.02, 0.15, and 0.35 represent small, medium, and large effect sizes, respectively. Given the relationship between f^2 and R^2, the values for R^2 (for small, medium, and large standardized effect sizes) are respectively 0.0196, 0.1304, and 0.2592, and for R, 0.14, 0.36, and 0.51 (Cohen, 1992).

Sheehan and McMillan (1999) reported that response rates for online surveys in HEIs are good (47.2%). I conducted a literature review to determine that the number of potential respondents to whom to distribute the survey to obtain the required minimum sample size of 92. Based on a review of the literature (Sheehan & McMillan, 1999), I determined that I needed to distribute the survey to at least 195 respondents to achieve the required sample size of 92. Therefore, I concluded that the staff population of 1,420 would be sufficient to achieve the desired sample size. All full-time and part-time academic, research, and support staff were eligible to participate in the survey; all staff had access to work computers, which meant that they were able to participate in the survey if they chose to do so. In 2008, management of the selected institution conducted

a staff survey, to which 60% of staff responded. While a minimum of 5% (72 respondents) of the surveyed population needed to respond to my survey for the results to be valid, I expected the survey to achieve a similar response rate to that achieved by the institution's 2008 survey. Although the results of the survey may be of interest and assistance to leaders of other institutions, both national and international, who wish to understand and manage issues related to workplace stress, I did not seek to generalize the results across other institutions.

The management of the selected institution contracted the owners of the ASSET survey, Robertson Cooper Ltd., to administer the survey on behalf of the institution. I sent all members of staff of the participating institution an e-mail that included a link to the ASSET survey and an invitation to participate. The survey included questions on (a) demographics, (b) perceived job performance, (c) perceived coworker support, (d) perceived leadership support, (e) perceived work–life conflict, and (f) perceived workplace stressors. A representative of Robertson Cooper Ltd. sent the survey responses to me in anonymized format, thereby removing any risk of a breach in confidentiality and anonymity.

Ethical Research

Doctoral students must complete and submit for approval the Institutional Review Board (IRB) form. Review and approval by the IRB ensures student and faculty research proposals comply with Walden University's ethical standards and U.S. federal regulations. I sought IRB approval for this study and did not undertake any research until the IRB had given its approval. I did not require the equivalent of IRB approval from the

subject institution. Academic staff members representing the research areas of Walden University reviewed the information presented for this research project and provided IRB approval (01-12-15-0406397) based on their assessment of the risks and benefits of the study. The study conforms to the ethical, moral, and researcher responsibilities required by Walden University and the research community.

Researchers conducting quantitative research must exercise ethical decision making when analyzing data (Bernard & Bernard, 2012). Howitt and Cramer (2011) highlighted the following general principles, which I followed over the course of this doctoral study:

1. Beneficence and nonmaleficence
2. Fidelity and responsibility
3. Integrity: accuracy, honesty, and truthfulness
4. Justice: equality of access to the benefits
5. Respect for people's rights and dignity

Participation in the survey was optional. I sent all members of staff of the participating institution an e-mail that included a link to the survey and an invitation to participate. In the e-mail, I advised potential participants that the survey was voluntary and that they could withdraw at any point simply by selecting the clear page option and closing the survey. I signed a data use agreement with the participating institution, which gave me access to anonymized data from the staff survey (see Appendix B). I informed potential participants of the nature and purpose of the survey and advised them that submitting their responses meant that they were giving their informed consent to

participate (see Appendix C). Because participants were able to access and complete the survey with an anonymous username and password, they did not have to identify themselves. After the participants submitted their completed responses, Robertson Cooper stored the responses anonymously on a secure database. Therefore, it was not possible for me to identify participants by electronic or other means. A representative at Robertson Cooper sent the anonymized results directly to me, which removed any risk of a breach in confidentiality or anonymity.

I took every possible measure to ensure the research remained free from bias (Henretty, Currier, Berman, & Levitt, 2014; Muskat et al., 2012; D. R. Shaw & Allen, 2012; Xu, 2012), including being cognizant of the language and words used when writing and disseminating the research (Bernard & Bernard, 2012; Howitt & Cramer, 2011). Neither the selected institution nor I used any incentive to entice people to engage with the study. I did not reveal the identity of the institution in the report or by any other means. To protect the rights of the participants, I stored the survey data on a secure, protected, and reliable server. I had the documents and files containing the data encrypted and password protected and will retain them for a period of 5 years.

Data Collection

Instruments

In this doctoral study, I used ASSET (Cartwright & Cooper, 2002) as the instrument to examine the stressors and the risk of organizational stress in the workforce. A representative at Robertson Cooper Ltd. issued the participating organization and me with a license to use ASSET for this study (see Appendix D for the license). I will make

available on request the anonymized raw data from the study. Because researchers have validated ASSET in a number of different contexts (Sang, Teo, Cooper, & Bohle, 2013), ASSET was an appropriate tool for this study. Developed with an occupational orientation, ASSET provides researchers with a robust and psychometrically tested instrument with which to diagnose work-related stress (American Psychological Association, 2014).

Researchers do not fully understand the relationships between social support, work–life conflict, job performance, and workplace stress (Jain et al., 2013). The objective for this doctoral study was to examine those relationships in an Irish HEI. As part of the study, I described and assessed levels of self-reported stress and examined their variability across various job and demographic factors. I expected the analysis to reveal whether perceptions of social support, work–life conflict, and job performance were predictors of perceptions of workplace stress. I used the biographical section of the ASSET survey to capture job and demographic data (see Appendix A for the text of the entire survey).

As a self-reported method, ASSET helped me to identify the risks of workplace stress in the subject institution's workforce. Researchers use ASSET to measure potential exposure to stress with respect to a range of common workplace stressors. I was able to garner from ASSET important information on levels of (a) physical health, (b) psychological well-being, (c) organizational commitment, (d) workplace stressors, and (e) social support. ASSET has four primary sections and 13 secondary sections and differs from typical employee satisfaction or engagement surveys, as the creators

designed it to capture employees' personal perceptions of the impact of the workplace situation. ASSET is an in-depth assessment that researchers can use to develop a better understanding of how workplace factors can influence engagement, positive psychological well-being, resilience, and many business-level outcomes that leaders of organizations value, such as productivity and low absence rates. For this study, the core ASSET survey contained 165 questions in the 13 sections depicted in Figure 3.

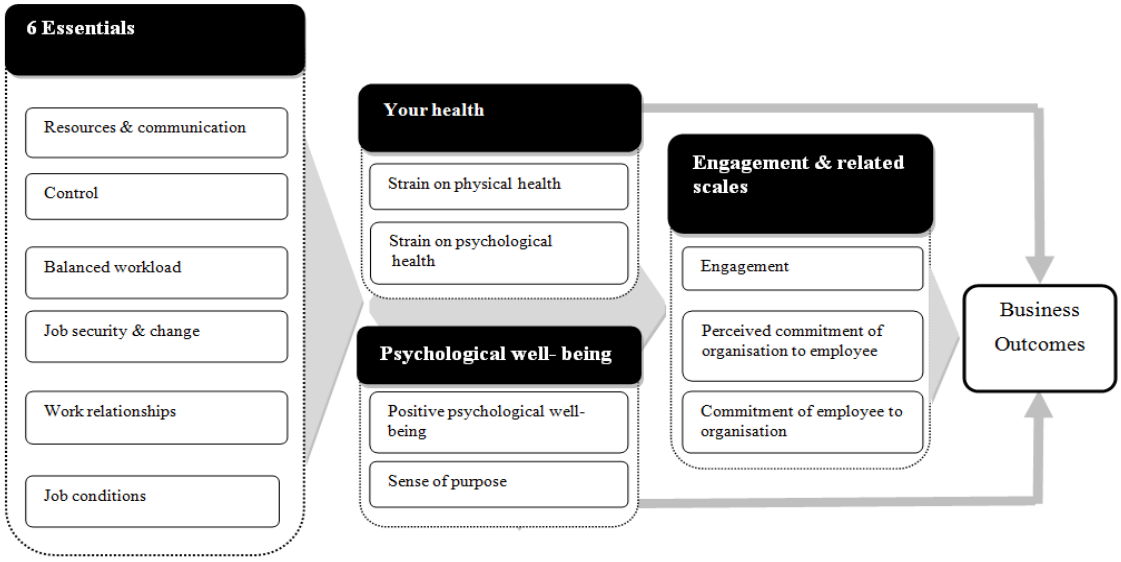

Figure 3. The ASSET survey. The figure shows the 13 sections that include the 165 core questions. Adapted from "Introducing ASSET," by Robertson Cooper, 2014, retrieved from http://www.robertsoncooper.com/how-we-do-it/our-products/asset#what-is-asset

The ASSET survey comprised 74 core items for developing parameters for the model depicted in Figure 3. In relation to employees' perceptions of their own job performance, ASSET measured this variable by means of a self-reported item on the extent to which individuals felt productive in their job over the previous 3 months (Donald et al., 2005). Measuring perceived job performance includes an 11-point scale

ranging in steps of 10 from 100% productive to 0-9% productive, which is an objective and valid measure of productivity (Donald et al., 2005).

The consistent replication of results indicates the reliability of the measurement instrument. Cartwright and Cooper used the Guttman split-half coefficient to determine the reliability of the ASSET instrument. ASSET coefficients ranged from 0.60 to 0.91, with all but two factors returning coefficients in excess of 0.70 (Cartwright & Cooper, 2002). Johnson and Cooper (2003) found that the Psychological Well-Being subscale has good convergent validity with the General Health Questionnaire, which is an existing measure of psychiatric disorders (Goldberg & Williams, 1988). Tytherleigh (2003) used ASSET as an outcome measure of job satisfaction in a nationwide study of occupational stress levels in 14 English HEIs. Tytherleigh computed a series of Cronbach alphas on each of the questions for the five ASSET subscales to assess the reliability of the ASSET survey instrument. The values ranged from 0.64 to 0.94, which indicates good internal consistency reliability. Internal consistency is a common indicator of reliability in research, as it shows the degree to which items in a scale measure the same construct. The internal consistency coefficient alphas for ASSET are in Table 1. Internal consistencies for the scales range from 0.71 to 0.92.

Straub, Boudreau, and Gefen (2004) noted that the predictive validity technique serves the practitioner community well because it predicts given outcomes based on measures posited for constructs. Therefore, the predictive validity technique is an appropriate technique for practitioners and for a doctoral research project on business

problems. ASSET has an established set of norms from a database of responses from 100,000 workers in public and private sector organizations in the United Kingdom.

Table 1

ASSET Internal Consistency

Scale	Alpha value (N = 32,500)
Perceptions of job	
Resources and communication	0.71
Control	0.85
Balanced workload	0.83
Work-life balance	0.73
Workload	0.81
Job security and change	0.74
Work relationships	0.84
Job conditions	0.74
Your health	
Physical health	0.79
Psychological health	0.92
Psychological well-being	
Positive psychological well-being	0.91
Sense of purpose	0.82
Engagement and related scales	
Engagement	0.79
Commitment of employee	0.85
Perceived commitment of organization toward employee	0.76

Note. Adapted from "Introducing ASSET" by Robertson Cooper, 2014, retrieved from http://www.robertsoncooper.com/how-we-do-it/our-products/asset#what-is-asset

ASSET presents scores in sten format. A sten is a standardized score based on a scale of 1 to 10, with a mean of 5.5 and a standard deviation of 2. Researchers use the sten system to make meaningful comparisons with the norm group. Most people (68%) score between sten 4 and sten 7. Scores that fall further from the mean are more extreme. Approximately 16% of people score at the low end, and another 16% score at the high

end. Figure 4 included an outline of the statistical validity of the ASSET instrument (Robertson Cooper, 2014).

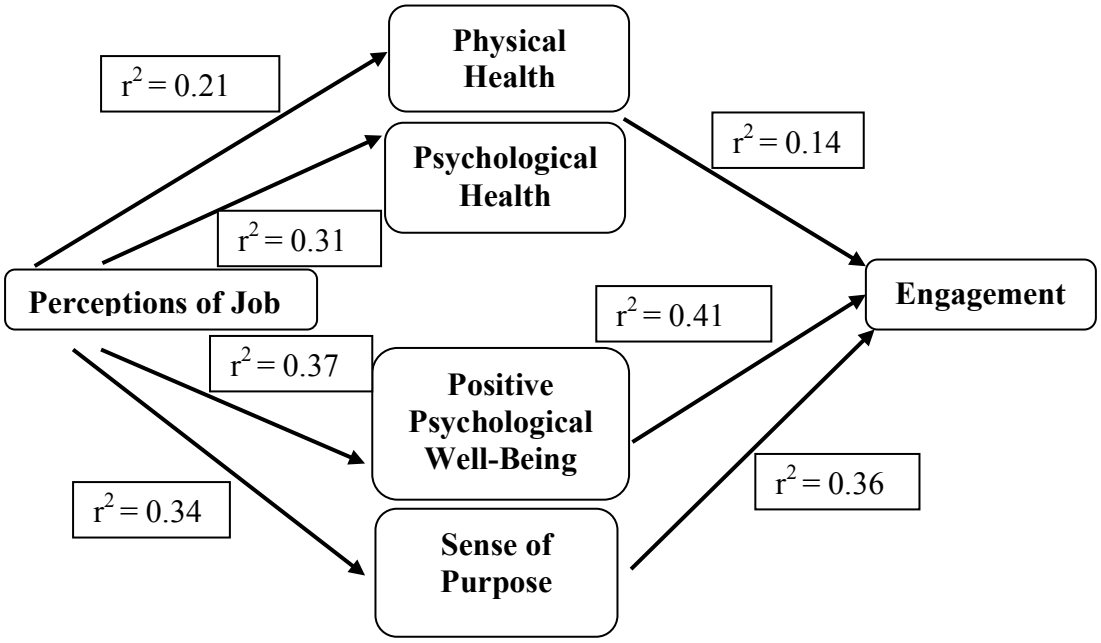

Figure 4. Statistical validity of the ASSET instrument. Adapted from "Introducing ASSET," by Robertson Cooper, 2014, retrieved from http://www.robertsoncooper.com /how-we-do-it/our-products/asset#what-is-asset. Reprinted with permission.

Face validity refers to people's perceptions of a test's validity (Howitt & Cramer, 2011). Face validity represents the extent to which a measure looks like it measures what it purports to measure (Cohen, Cohen, West, & Aiken, 2013). Face validity is an important concept because it can determine the extent to which respondents find the test acceptable and are willing to complete it (Howitt & Cramer, 2011). In the development of ASSET, it was important that the language and meaning of the items were acceptable to all grades and types of employees (Robertson Cooper, 2014). ASSET developers created an employee pool representing a range of different employee groups to pilot and test the instrument for meaning with the assistance of a panel of occupational health practitioners (Robertson Cooper, 2014). The designers of ASSET used feedback to develop the set of

items that form ASSET and used face validity to test and evaluate scale construction (Robertson Cooper, 2014).

A construct is an attribute or a characteristic inferred from research (Straub et al., 2004). Establishing construct validity involves determining the extent to which a test is based on and measures a theory or model (Howitt & Cramer, 2011). Cooper and Marshall's 1978 model of stress influenced ASSET (Robertson Cooper, 2014). However, since the time of Cooper and Marshall's work, dramatic changes have occurred in career development and working arrangements, researchers have conducted extensive studies into models of stress, and a new set of stressors has emerged. By incorporating these new developments into ASSET, Cartwright and Cooper have ensured that the basis of the validated instrument is Cooper and Marshall's theoretical model and that it reflects current research and the current workplace (Robertson Cooper, 2014).

Data Collection Technique

I used the confidential ASSET survey instrument designed by Cartwright and Cooper (2002) to survey the entire population (N = 1,420) of academic, research, and support staff of an Irish HEI. I distributed the survey through the HEI's e-mail system. Robertson Cooper sent the anonymized raw data directly to me, thereby removing any risk of a breach in confidentiality or anonymity. The analysis of the survey results may inform leaders' and managers' understanding of the relationships between social support, work–life conflict, job performance, and workplace stress. As the ASSET survey instrument is a validated and reliable instrument, a pilot study was not necessary. Appendix A includes the ASSET survey questions.

Data Organization Techniques

I used ASSET and SPSS to track, organize, and analyze the data. I placed the survey data on a secure, protected, and reliable server. To protect the rights of the participants, I arranged to have the documents and files containing the data encrypted and password protected and will retain them for 5 years. When the 5 years has elapsed, I will permanently delete all the data and records.

Data Analysis Technique

Some statistical methods require researchers to make assumptions about the data under analysis (Nichols, 2012). For example, a researcher using a paired *t* test assumes the distribution of the differences between pairs to be normal. The researcher using the paired *t* test does not assume that observations within each group are normal, but only assumes the differences to be normal. Also, the researcher using the paired *t* test does not assume the groups to be homoscedastic. Multiple linear regression analysis entails an assumption of normal distribution in the population's response variable (Green & Salkind, 2011). In many instances, this assumption will hold true for data analysis; when it is not true, researchers can either transform data so that the assumption holds true or use nonparametric analysis. I used SPSS to produce accurate and reliable results by reducing the impact of outliers and anomalies (Field, 2009).

When using correlation analysis, researchers evaluate the strength of the relationships among variables or test whether changes in one variable can predict changes in another variable (i.e., the linear relationship; Brandimarte, 2012). Researchers using correlation analysis do not focus on cause and effect; instead, they focus on the degree

and nature of the association between the variables (Cohen et al., 2013). Researchers use correlation analysis to test the statistical interdependence of the variables. Researchers use regression analysis to attempt to describe the dependence of a variable on an explanatory variable. Multiple regression analysis includes multiple techniques for analyzing several variables when a researcher wishes to examine the relationship between the dependent variable and the independent variables (Cohen et al., 2013). A research study of crop yields using correlation analysis should reveal a high association between crop yield and temperature; the use of regression analysis should reveal the dependence of crop yield on temperature (Cohen et al., 2013). Researchers use multiple regression models to determine the extent and nature of the mathematical relationship among the variables. Multiple regression models include (a) fixed model, R^2 deviation from zero; (b) fixed model, R^2 increase; (c) fixed model, single regression coefficient; and (d) random model (Faul et al., 2009).

For this study, I used a multiple regression random effects model. Investigators using this type of model use regression analysis to test whether a group of predictors significantly predicts an outcome variable (Crosby et al., 2011). Regression goes beyond correlation by adding prediction capabilities. The coefficient of determination R^2 refers to the measure that shows how well data match in a statistical model or how the regression line approximates the real data points (Jackson, 2012). If all observations fall on the regression line, $R^2 = 1$; where there is no linear relationship, $R^2 = 0$ (Cohen et al., 2013). Researchers analyzing the statistical significance of R^2 can overestimate how well the model fits the population so the adjusted R^2 corrects R^2 to give a better indication of how

well the model fits the population (Cohen et al., 2013). In a multiple regression random effects model, R^2 is the lower critical R^2 and the higher critical R^2 (Faul et al., 2009). For multiple regression two-tailed tests, the researcher does not reject H_0 if the sample R^2 falls between the lower critical R^2 and the higher critical R^2; otherwise, the researcher rejects H_0 (Faul et al., 2009).

Multivariate relationships refer to the relationship between multiple variable data. In multivariate relationship analysis, values must be available for all variables. The use of scatter plots is a simple way of portraying multivariate relationships. Multivariate relationships are a common feature of research because researchers need them to answer more detailed or complex questions involving multiple variables. The use of multivariate relationships is essential to a doctoral study because students need to address real business problems to which the measurements of multivariate relationships are central. The use of multivariate relationship measurement is particularly appropriate for business studies where researchers are seeking to examine the relationship between variables in the field rather than manipulating variables in experiments.

I tested the following assumptions for the multiple regression models: (a) variables are normally distributed, (b) the relationships between the dependent and independent variables are linear, (c) variables are measured without error, (d) multicollinearity is not present, and (e) heteroscedasticity is not present. I used SPSS to analyze the data and the Kolmogorov-Smirnov test to examine the data for normality prior to conducting the data analysis. I used descriptive statistics (mean, standard deviation, skewness, and kurtosis) to analyze the collected data from ASSET for normal

distribution. I used boxplot diagrams to identify outliers for examination to decide whether to retain, transform, or exclude the outliers (Green & Salkind, 2011). Outliers are data that have statistically significantly higher or lower values than other values in the collected data. The scatterplot of standardized residuals showed that the data met the assumptions of homogeneity of variance, and linearity.

In the case of most statistical packages, researchers can easily remove outliers, but it is not always appropriate to do so (Keith, 2014). Transformations can sometimes improve normality but can make the results more difficult to understand (Jackson, 2012). In regression, researchers usually want to determine the relative importance of each predictor variable to the response variable and to determine whether R^2 increases significantly (Jackson, 2012). R^2, or the coefficient of determination, is the most reported measure of error or goodness of fit for regression models (Cohen et al., 2013). Researchers use R^2 to show how well predictors (data points) fit a curve or line (Cohen et al., 2013). If researchers add more predictors to the regression model, they increase the coefficient of determination, R^2 (Jackson, 2012). As R^2 always increases and never decreases (Faul et al., 2009), it can appear to be a better fit with additional predictors added to the model. However, this may be misleading (Jackson, 2012). I used SPSS to produce estimates of the regression coefficients' standard errors to reduce the impact of outliers and possible heteroscedasticity violations of statistical assumptions and to generate statistically valid results (Field, 2009). Researchers use SPSS to derive robust estimates of standard errors and confidence intervals for estimates such as the (a) mean,

(b) median, (c) proportion, (d) odds ratio, (e) correlation coefficient, and (f) regression coefficient (Field, 2009).

By using standard multiple regression, a researcher can estimate the relationship between the dependent variable and the independent variables if the relationships are linear (Keith, 2014). However, not all relationships are linear, which can lead the researcher to underestimate the nature and strength of the real relationship between independent variables and the dependent variable (Cohen et al., 2013). Type I and Type II errors can result as a consequence of underestimation (Keith, 2014). For multiple regression analysis, researchers should examine the analysis for nonlinearity (Jackson, 2012). I used residual plots to identify any linear and curvilinear relationships (Keith, 2014).

Measuring variables can be difficult and open to error; in multiple regression analysis, errors in the measurement of variables can lead to the overestimation of effect sizes of other variables (Cohen et al., 2013). I am not concerned with incorrect measurements, and I discussed the validity and reliability of ASSET in earlier sections. Multicollinearity can occur in multiple regression models if independent variables closely correlate to each other (Jackson, 2012). The presence of multicollinearity can give rise to odd results when the researcher examines the relationship between an individual independent variable and the dependent variable, which can manifest as wide confidence levels and *p* values for the independent variables (Cohen et al., 2013). A researcher using multicollinearity might deceptively inflate the standard errors, which can cause some variables to appear statistically insignificant when they should be significant (Crosby et

al., 2011). Thus, researchers may not be able to determine null findings if they find variables to be insignificant (Cohen et al., 2013). If multicollinearity had been an issue for this study, I could have pursued one of two options: (a) reduce the number of collinear variables until only one remained from the group or (b) combine collinear variables into one or more independent factors (Jackson, 2012). I used SPSS to estimate the variance inflation factor (VIF) for assessing the magnitude of multicollinearity. The results of the collinearity tests revealed the data met the assumption of collinearity, which indicated that multicollinearity was not a concern (Cohen et al., 2013).

For this study, I used the multiple linear regression module in SPSS to examine the relationships between the dependent variable and the independent variables. I tested the study's assumptions (discussed earlier) before I ran the regression. The tabular-format SPSS outputs provided me with information about the relationships between the variables, which I used to test the hypotheses. Data from the SPSS tables included values for (a) R, (b) R^2, (c) adjusted R^2, (d) standard error of the estimate, (e) sum of squares, (f) degrees of freedom, (g) mean squares, (h) F statistics, (i) p values, (j) unstandardized coefficients (β and standard error), (k) standardized coefficients (beta), and (l) t test. SPSS provided the F statistic for determining the overall significance of the multiple regression model (Green & Salkind, 2011). Researchers consider values of R^2 below 0.2 to be weak, values between 0.2 and 0.4 to be moderate, and values at 0.5 and above to be strong (Green & Salkind, 2011). Cohen (1992) noted that f^2 values of 0.02, 0.15, and 0.35 represent small, medium, and large effect sizes, respectively.

I used multiple linear regression analysis to evaluate whether correlations existed between employees' perceptions of social support, work–life conflict, job performance, and workplace stress. I also used multiple linear regression analysis to conduct significance tests to evaluate whether social support, work–life conflict, and job performance correlated to workplace stress. The analysis related to the hypothesis because I developed the hypothesis to determine if social support, work–life conflict, and job performance correlated to workplace stress. In the analysis of the findings, I found that social support, work–life conflict, and job performance significantly related to workplace stress; therefore, I rejected the null hypothesis. Similarly, because different staff groups significantly related to social support, work–life conflict, job performance, and workplace stress, I rejected the second null hypothesis. I compared the p value with the actual significance level for the test; if it is smaller than the actual significance, then the result is significant. In the analysis of the findings, I tested the null hypotheses at the 5% significance level; I reported this as $p < 0.05$. Smaller p values provide stronger evidence for rejecting the null hypothesis.

The ERI theory, expectancy theory, and equity theory formed the theoretical framework for this quantitative correlational study. In the literature review, I demonstrated how the theoretical framework relates to the multiple regression model's variables for examining the relationships between perceptions of social support, work–life conflict, job performance, and workplace stress. In the analysis of the findings, the theoretical framework I selected will assist me in (a) interpreting the results; (b) understanding the correlations; (c) testing the hypotheses; (d) providing answers to the

research questions; and (e) building knowledge by corroborating or disputing the theory behind the framework.

Reliability and Validity

Reliability

I addressed the reliability of ASSET in the Instruments section. That section included a discussion on (a) internal reliability, (b) split-half coefficient reliability, (c) Cronbach's coefficient alpha, (d) construct validity, and (e) predictive reliability. I also addressed stability across measures over time in the Instruments section. Reliability is the ability to measure a phenomenon consistently and dependably (Bruce et al., 2013). Because leaders in more than 100 organizations with over 100,000 employees have used ASSET, I expected the findings from this study to be both reliable and valid. However, to be sure of this, I checked the findings and results against peer-reviewed literature and research (Howitt & Cramer, 2011).

I checked all multiple regression modeling assumptions before I analyzed the collected data. I used SPSS to produce statistically valid results by reducing the impact of outliers and violations of statistical assumptions (Field, 2009). Researchers use SPSS to derive robust estimates of standard errors and confidence intervals for estimates such as the (a) mean, (b) median, (c) proportion, (d) odds ratio, (e) correlation coefficient, and (f) regression coefficient (Field, 2009). I used ASSET to store the data on a secure backed-up server; I ensured the server was password protected to safeguard the integrity of the data. I documented my role as researcher, identified the ethical standards for the study, and outlined all the steps and processes that I took to ensure the study's reliability.

Validity

Researchers must ensure their research meets the expected standards of their peers and members of the research community deem it credible, whether or not the research community agrees with the arguments. Therefore, validity was a critical issue throughout the whole research project. Validity encompasses (a) content validity, (b) construct validity, (c) statistical conclusion validity, (d) selection bias, and (e) known-groups validity (Straub et al., 2004).

Threats to statistical conclusion validity occur when researchers make incorrect inferences because of inadequate statistical power (Goodhue, Lewis, & Thompson, 2012). Researchers using statistical conclusion validity techniques can check the quality of the statistical information and sources of statistical errors. I used known-groups validity to determine if the findings between different groups were valid (Howitt & Cramer, 2011). For example, if other researchers found consistently that HEI staff have high-stress profiles, I would use these findings to increase the assurance of statistical validity. Validity threats due to selection bias were not a concern because I surveyed the entire staff population of the participating institution and I did not seek to generalize the findings (Straub et al., 2004).

Transition and Summary

Section 2 included a detailed description of the (a) research method, (b) design, (c) approach, (d) population, (e) instrumentation and data collection processes, (f) instrument reliability and validity, and (g) data analysis process. In Section 2, I provided the rationale for using a quantitative correlational design to answer the research questions

and test the null hypotheses. I also identified in Section 2 the multiple regression analysis techniques that I used to analyze the data to determine to what extent correlations existed between the independent variables perceived social support, perceived work–life conflict, and perceived job performance and the dependent variable perceived workplace stress. I addressed the reliability and validity of the instrument and the study. The discussion included (a) internal reliability, (b) split-half reliability, (c) Cronbach's coefficient alpha, (d) construct validity, (e) content validity, (f) manipulation validity, (g) statistical conclusion validity, (h) selection bias, (i) stability across measures, (j) known-groups validity, (k) predictive reliability, and (l) verification against peer-reviewed literature and research.

Section 3 includes an overview of the study and an analysis of the findings. I present the results of the study in tables, figures, and explanations. I present the results for the tests of the hypotheses and thereby provide and justify the answers to the research questions. I then provide interpretations of the results and recommendations for business practice, social change, and further study. Finally, I conclude Section 3 with some reflections and a summary of the study.

Section 3: Application to Professional Practice and Implications for Change

Introduction

The purpose of this quantitative correlational study was to provide educational leaders with the information they need to examine and understand the relationships between perceptions of social support, work–life conflict, job performance, and workplace stress while controlling for staff category, direct reports, age, and gender in an HEI in Limerick, Ireland. A quantitative methodology with a correlation design was the most appropriate approach to address the problem, purpose, and research questions by examining the relationships among the variables. The results from this study may inform the leaders of the subject HEI on appropriate interventions they could put in place to improve the lives of employees in a business and social context.

Presentation of Findings

A summary of the findings showed that workplace stress has a negative relationship with social support and job performance and a positive relationship with work–life conflict. Furthermore, the results indicated that no significant differences existed in the relationships between the covariates staff category and age and the dependent variable workplace stress. Additionally, the results indicated that significant differences existed in the relationships between the covariates direct reports and gender and the dependent variable workplace stress. Specifically, the results revealed that higher levels of workplace stress directly related to low levels of social support and lower job performance. Additionally, high levels of work–life conflict among respondents led to higher than expected levels of workplace stress. The results showed that female staff

exhibited higher than expected levels of workplace stress. The theoretical framework for this study consisted of a combination of ERI theory, expectancy theory, and equity theory. The theoretical framework formed the basis for interpreting the findings because perceptions of equity, reciprocation, and fairness influence perceptions of social support, work–life conflict, job performance, and workplace stress (Olejniczak & Salmon, 2014).

I used multiple linear regression analysis to evaluate whether relationships existed between the independent variables, the covariates, and the dependent variable and to test the hypotheses. The independent variables used in this quantitative correlational design were measures of social support, work–life conflict, and job performance. The dependent variable was a measure of workplace stress. The covariates were measures of staff category (four levels: academic, research, support, other); direct reports (five levels: none, 1-5 people, 6-10 people, 11-20 people, over 20 people); age (five levels: 25 years and under, 26-35 years, 36-45 years, 46-55 years, 56 years and over), and gender (two levels: female, male). The research questions were as follows:

RQ1: What are the relationships between employees' perceptions of social support, work–life conflict, job performance, and workplace stress while controlling for staff category, direct reports, age, and gender in an Irish HEI?

RQ2: What effects do the different levels of (a) staff category, (b) direct reports, (c) age, and (d) gender have on respondents' perceptions of workplace stress?

Respondents' Demographics

Six hundred and seventy-eight members of staff responded to the ASSET survey. This equates to a 48% response rate of the total population (N = 1,420) of the subject institution. Analysis of nonrespondents was not possible, as the study was anonymous and there was no way to identify nonrespondents. Sixty-four percent of the respondents were female and 36% were male. The distribution of respondents' ages was as follows: (a) 25 years and under = 2.5%, (b) 26-35 years = 20.5%, (c) 36-45 years = 32.6%, (d) 46-55 years = 29.5%, and (e) 56 years or over = 14.9%. Information on the marital status of respondents is as follows: (a) 64% were married or in a civil partnership, (b) 10.3% were living with a partner, (c) 18.7% were single, (d) 3.1% were separated, (e) 3.4% were divorced, and (f) 0.3% were widowed.

The number of children aged 18 years or under for whom the respondents had responsibility was as follows: (a) no children = 51.3%, (b) one child = 17.8%, (c) two children = 18.9%, (d) three children = 9.7%, (e) four children = 2.2%, and (f) five or more children = 0.1%. The number of children aged 18 years or over for whom the respondents had responsibility was as follows: (a) no children = 76.7%, (b) one child = 12.7%, (c) two children = 6.8%, (d) three children = 2.7%, (e) four children = 1%, and (f) five or more children = 0.1%. The ethnic backgrounds of the respondents were as follows: (a) Asian = 1%, (b) Black = 0.1%, (c) mixed = 0.6%, (d) White = 97.3%, and (e) other = 1%.

The Irish Disability Act 2005 includes the following definition of *disability*:

> A substantial restriction in the capacity of the person to carry on a profession, business, or occupation in the Irish State or to participate in social or cultural life in the Irish State by reason of an enduring physical, sensory, mental health, or intellectual impairment.

Of the respondents, 1.5% considered themselves to have a disability within this definition, and 20.9% had caring responsibilities for an elderly relative or a relative with a disability.

A recommendation in the National Guidelines on Physical Activity for Ireland (Department of Health and Children & Health Service Executive, 2009) is that individuals spend 150 minutes on moderate-intensity physical activity every week. In response to the question about how often they meet the government's recommended weekly guidelines for physical activity, respondents answered as follows: (a) always = 21.2%, (b) usually = 30.8%, (c) sometimes = 24.0%, (d) rarely = 17.4%, and (f) never = 6.6%. Respondents were asked if they found time to relax and wind down, to which they responded (a) always = 9.6%, (b) usually = 32.0%, (c) when possible = 43.7%, (d) not usually = 14.5%, and (f) never = 1.3%. Respondents were (a) full-time permanent = 73.5%, (b) part-time permanent = 5.5%, (c) full-time temporary = 17.6%, and (d) part-time temporary = 3.4%. Finally, the distribution of the number of years the respondents worked with the subject institution was (a) less than 12 months = 7.5%, (b) 1-5 years = 19.0%, (c) 6-10 years = 25.1%, (d) 11-15 years = 18.0%, (e) 16-20 years = 11.5%, (f) 21-30 years = 13.1%, and (g) over 30 years = 5.8%.

Results of Tests of Statistical Assumptions

I carried out an analysis of standardized residuals on the data to identify any outliers, which indicated that Cases 39 and 225 were atypical. Based on reviewing the boxplot in Figure 5, I subsequently removed the two cases from the dataset.

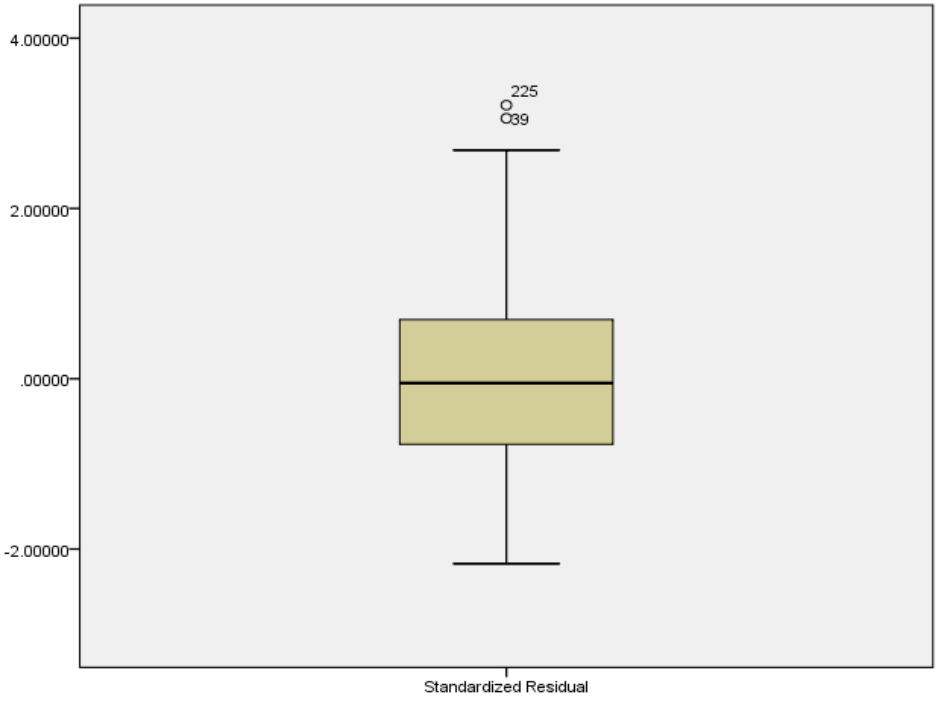

Figure 5. Boxplot identifying outliers.

The histogram in Figure 6 and the P-P plot in Figure 7 indicated that the standardized residuals had a normal distribution.

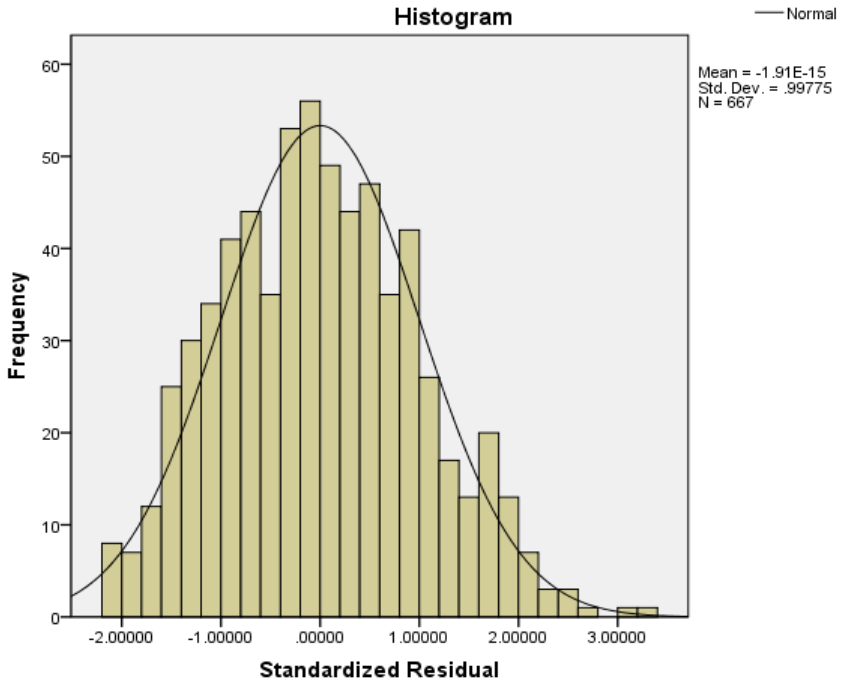

Figure 6. Histogram depicting normally distributed residuals.

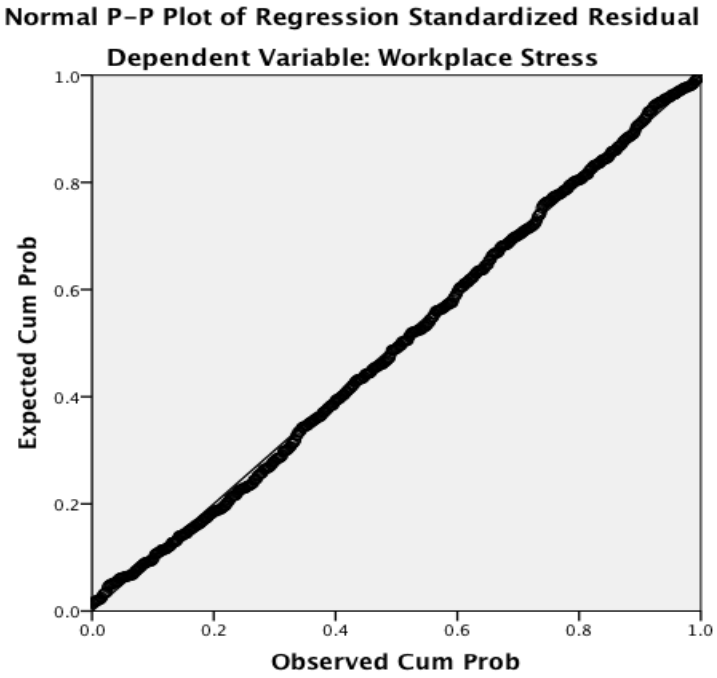

Figure 7. Normal P-P plot depicting normally distributed residuals.

The scatterplot of standardized residuals showed that the data met the assumptions of homogeneity, of variance, and of linearity. Figure 8 depicts the scatterplot of standardized residuals.

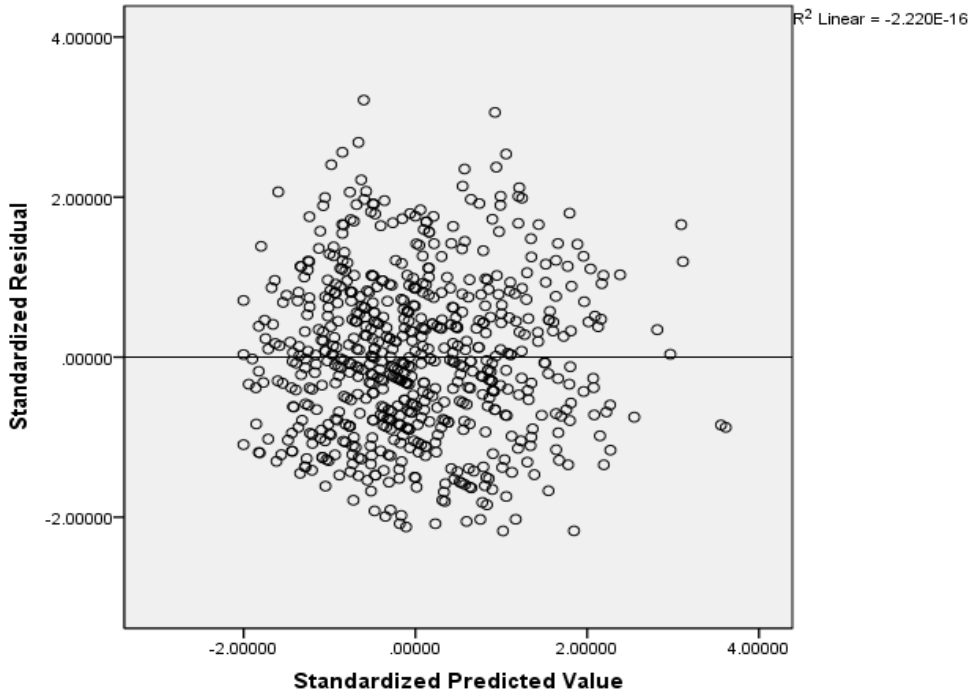

Figure 8. Scatterplot depicting the standardized residuals.

The results of the collinearity tests revealed the data met the assumption of the absence of collinearity (tolerance values less than .10 and VIF values greater 10 indicate possible multicollinearity). The results indicated that multicollinearity was not a concern, as tolerance values were greater than .10 and VIF values were less than 10 (Cohen et al., 2013). The results were as follows: social support, tolerance = 0.91, VIF = 1.10; job performance, tolerance = 0.91, VIF 1.10; and work–life conflict, tolerance = 0.98, VIF = 1.02; staff category, tolerance = 0.99, VIF 1.00; direct reports, tolerance = 0.99, VIF 1.01; age, tolerance = 0.99, VIF 1.00; gender, tolerance = 0.99, VIF 1.00.

Table 2 shows the descriptive statistics demonstrating the normal distribution of the residuals resulting from the regression model. An examination of the skewness and kurtosis showed there were no values greater than an absolute value of 1, which revealed no significant violations of the normality assumption of the standardized residuals. The significance test of the standardized residuals for normality is in Table 3. As the sample size was larger than 50, I used the Kolmogorov-Smirnov test for normality. Researchers use the null hypothesis when testing for normality to check that the actual distribution of the variable is equal to the expected distribution, that is, the distribution of the variable is normal (Cohen et al., 2013). The *p* value associated with the test of normality (0.15) is greater than the level of significance (0.01). Therefore, I did not reject the null hypothesis, and I concluded the distribution of the response data from ASSET was normal.

Table 2

Descriptive Statistics of Standardized Residuals

	Statistic	Std. error
Mean	0	0.04
95% confidence interval for mean		
Lower bound	-0.07	
Upper bound	0.07	
5% trimmed mean	-0.02	
Median	-0.05	
Variance	0.99	
Std. deviation	0.99	
Minimum	-2.17	
Maximum	3.21	
Range	5.38	
Interquartile range	1.47	
Skewness	0.24	0.09
Kurtosis	-0.33	0.19

Table 3

Tests of Normality of the Standardized Residuals

	Kolmogorov-Smirnov		
	Statistic	*df*	Sig.
Standardized residual	0.03	667	0.15

Because the published tested Cronbach's coefficient alphas for ASSET came from a UK context, I tested them to ensure the ASSET internal consistency was transferable to an Irish context. The results revealed no anomalies. Table 4 shows the scales tested and the Cronbach's coefficient alpha values for ASSET in an Irish context.

Table 4

ASSET Internal Consistency

	Scale statistics				Alpha value
Scale	Mean	Variance	Std. deviation	No. of items	(N = 678)
Social support	68.55	137	11.7	24	0.93
Work–life conflict	10.97	21.28	4.62	4	0.77
Job performance	25.02	13.93	3.73	6	0.90
Workplace stress	38.94	83.74	9.15	17	0.89

Analysis

I used multiple linear regression analysis to test the hypotheses at the $p < .05$ level. I conducted a hierarchical multiple regression analysis with the three independent variables (social support, work–life conflict, job performance) while controlling for the four covariates (staff category, direct reports, age, gender) as predictors of the dependent variable workplace stress. In SPSS's hierarchical multiple regression analysis, researchers enter variables in the model in blocks. I measured the social support construct using the multidimensional scale of perceived social support (Zimet, Dahlem, Zimet, & Farley, 1988) from ASSET. A higher score on the social support scale indicates a higher

degree of perceived social support. I measured the work–life conflict construct using the work–life conflict scale from ASSET. A higher score on the work–life conflict scale indicates that work–life conflict issues troubled respondents more. I measured the job performance construct using the job performance scale (Robertson, Baron, Gibbons, MacIver, & Nyfield, 2000 from ASSET. A higher score on the job performance scale indicates higher levels of performance. I measured the workplace stress construct using the physical health and psychological health scales from ASSET. A higher score on the physical and psychological health scale indicates poorer health and higher levels of workplace stress.

R is the equivalent of Pearson's *r*, but instead of representing the magnitude and direction of a relationship between two variables, the *R* value reflects the strength of the relationship between the outcome variable and the values predicted by the model as a whole. I used the measurement of *R* to determine the strength of the relationship between the outcome variable and the values predicted by the model as a whole (weak = $R \leq 0.40$, moderate = $R = 0.41$-0.60, and strong = $R > 0.60$ = strong; Cohen, 1992). An *R* value close to zero means the model is poor at predicting the outcome, whereas *R* close to -1 or +1 indicates the model is a perfect fit (Cohen et al., 2013). R^2 represents the amount of variation in the outcome variable that the model can explain that includes multiple predictor variables (Cohen et al., 2013). Coefficients for negative relationships have negative signs (Cohen et al., 2013).

Research Question 1 and Hypotheses

The first research question and derivative hypotheses that guided this study were as follows: What are the relationships between employees' perceptions of social support, work–life conflict, job performance, and workplace stress while controlling for staff category, direct reports, age, and gender in an Irish HEI?

$H1_0$: There are no relationships between employees' perceptions of social support, work–life conflict, job performance, and workplace stress while controlling for staff category, direct reports, age, and gender.

$H1_a$: There are relationships between employees' perceptions of social support, work–life conflict, job performance, and workplace stress while controlling for staff category, direct reports, age, and gender.

For Research Question 1, I conducted a hierarchical multiple regression analysis with the three independent variables (social support, work–life conflict, job performance) and the four covariates (staff category, direct reports, age, gender) as predictors of the dependent variable workplace stress. In hierarchical multiple regression analysis, researchers enter variables in the model in blocks. I entered the four covariates (staff category, direct reports, age, gender) into Block 1 and the three independent variables (social support, work–life conflict, job performance) into Block 2. I assessed each variable in terms of what it added to the prediction of the dependent variable after controlling for the covariates. I assessed the overall model and the relative contribution of each block of variables to the overall model.

I used hierarchical multiple linear regression analysis to evaluate whether statistically significant (at $p < .05$ level) correlations existed between the independent variables, the covariates, and the dependent variable and to test the hypotheses. I conducted a hierarchical multiple regression analysis to investigate the ability of social support, work–life conflict, and job performance to predict levels of workplace stress, after controlling for staff category, direct reports, age, and gender. Tables 5-8 show the correlations among the predictor variables (social support, work–life conflict, job performance, staff category, direct reports, age, and gender) for this study. I categorized the strength of the relationships between the set of independent variables and the dependent variable based on the values of R: weak = $R \leq 0.40$; moderate = $R = 0.41$-0.60; and strong = $R > 0.60$ (Cohen, 1992). In Model 1, the strength of the relationship (as shown in Table 6) between the independent variables and the dependent variable was weak ($R = 0.121$, $p < .05$). In Model 2, the strength of the relationship (as shown in Table 6) between the independent variables and the dependent variable was moderate ($R = 0.504$, $p < .01$). The regression equation for Model 1 (as shown in Tables 6 and 7) was statistically significant: $R^2 = .015$, adjusted $R^2 = .009$, $F(4, 649) = 2.418$, $p < .05$. The regression equation for Model 2 (as shown in Tables 6 and 7) was statistically significant: $R^2 = .254$, adjusted $R^2 = .246$, $F(7, 646) = 31.429$, $p < .01$.

Table 5

Descriptive Statistics for the Hierarchical Multiple Regression Model

	Mean	Std. deviation	*N*
Social support	5.72	.98063	654
Work–life conflict	10.97	4.61313	654
Job performance	25.01	3.69136	654
Staff Category	.87	.81400	654
Direct Reports	.58	.96700	654
Age	2.33	1.03800	654
Gender	.67	.47200	654
Workplace stress	36.25	9.90385	654

Table 6

Hierarchical Multiple Regression Model

					Change statistics				
Model	*R*	R^2	Adjusted R^2	Std. error of the estimate	R^2 change	*F* change	*df*1	*df*2	Sig. *F* change
1	.121[a]	.015	.009	9.86112	.015	2.418	4	649	.047
2	.504[b]	.254	.246	8.60007	.239	69.095	3	646	.000

[a]Predictors: (constant), staff category, direct reports, age, and gender. [b]Predictors: (constant), staff category, direct reports, age, gender, social support, work–life conflict, and job performance.

Table 7

ANOVA for Hierarchical Multiple Regression Model

Model	Sum of squares	*df*	Mean square	*F*	Sig.
1					
Regression	940.45	4	235.113	2.418	.047[a]
Residual	63109.90	649	97.242		
2					
Regression	16271.46	7	2324.494	31.429	.000[b]
Residual	47778.90	646	73.961		

Note. Dependent variable is workplace stress.
[a]Predictors: (constant), staff category, direct reports, age, and gender. [b]Predictors: (constant), staff category, direct reports, age, gender, social support, work–life conflict, and job performance.

The first step of the hierarchical multiple regression involved entering four covariates: staff category, direct reports, age, and gender. Model 1 was statistically significant $F(4, 649) = 2.418$, $p < .05$ (as shown in Tables 6 and 7) and explained 1.5% of the variance in workplace stress. The second step of the hierarchical multiple regression involved entering three predictors: social support, work–life conflict, and job performance. After entry of social support, work–life conflict, and job performance, the total variance explained by the model was 25.4%, $F(7, 646) = 31.429$, $p < .01$. The introduction of social support, work–life conflict, and job performance explained an additional 23.1% of the variance in workplace stress, after controlling for staff category, direct reports, age, and gender (R^2 change = .239, $p < .01$).

Table 8 includes the SPSS coefficient results for the independent variables and their coefficients. A positive or negative *B* coefficient indicates the direction of the relationship between the independent and the dependent variable. The unstandardized coefficient for social support was -1.475, which meant for every unit increase in social support, the resulting expectation was a -1.475 unit decrease in workplace stress. The unstandardized coefficient for work–life conflict was .869, which meant for every unit increase in work–life conflict, the resulting expectation was a .869 unit increase in workplace stress. The unstandardized coefficient for job performance was -.422, which meant for every unit increase in job performance, the resulting expectation was a -.422 unit decrease in workplace stress.

Table 8

Coefficients for the Hierarchical Multiple Regression Model

	Unstandardized coefficients		Standardized coefficients			Collinearity statistics	
Model	*B*	Std. error	Beta	*t*	Sig.	Tolerance	VIF
1							
(Constant)	36.22	1.25		28.89	.000		
Staff category	-.77	.48	-.063	-1.59	.113	0.997	1.003
Direct reports	-.37	.41	-.036	-.89	.374	0.991	1.009
Age	-.183	.38	-.019	-.47	.635	0.993	1.007
Gender	2.03	.83	.097	2.43	.016	0.997	1.003
2							
(Constant)	43.63	3.10		14.06	.000		
Staff category	.39	.43	.032	.90	.367	0.991	1.009
Direct reports	-.81	.36	-.079	-2.23	.026	0.983	1.017
Age	.20	.34	.021	.61	.544	0.991	1.009
Gender	2.61	.75	.124	3.50	.000	0.987	1.013
Social support	-1.47	.37	-.146	-4.00	.000	0.909	1.100
Work–life conflict	.87	.08	.405	11.43	.000	0.960	1.041
Job performance	-.42	.10	-.157	-4.41	.000	0.904	1.106

Note. Dependent variable is workplace stress.

Using the unstandardized coefficients to make comparisons between the sizes of the various coefficients between the three independent variables was not possible, as I measured the independent variables on different scales. The standardized coefficients (beta) in Table 8 showed values of the transformed coefficients into standardized regression coefficients, which meant they were transformed to the same scale so measurement and comparison between the sizes of the various coefficients was possible. As shown in Table 8, the values for the standardized coefficients (beta): (a) social support was -.146, (b) work–life conflict was .405, and (c) job performance was -.157. The largest coefficient (0.405) indicated the independent variable work–life conflict had the greatest relative influence on the dependent variable workplace stress.

As shown in Table 8, in the final (complete) model, all three predictor variables and two of the covariates (direct reports = $p < .05$, and gender = $p < .01$) were statistically significant, with standardized coefficients for work–life conflict recording a higher standardized beta value (beta = .405, $p < .01$) than job performance (beta = -.157, $p < .01$), social support (beta = -.146, $p < .01$), gender (beta = .124, $p < .01$), and direct reports (beta = -.079, $p < .05$).

The null hypothesis for the first research question was as follows: There are no relationships between employees' perceptions of social support, work–life conflict, job performance, and workplace stress while controlling for staff category, direct reports, age, and gender. Thus, because there were statistically significant relationships between employees' perceptions of social support, work–life conflict, job performance, and workplace stress while controlling for staff category, direct reports, age, and gender, I rejected the null hypothesis.

Research Question 2 and Hypotheses

The second research question (and derivative hypotheses) that guided this study was as follows: What effects have the different levels of (a) staff category, (b) direct reports, (c) age, and (d) gender on respondents' perceptions of workplace stress?

$H2_0$: There are no significant effects in respondents' perceptions of workplace stress for the different levels of (a) staff category, (b) direct reports, (c) age, and (d) gender.

$H2_a$: What effects do the different levels of (a) staff category, (b) direct reports, (c) age, and (d) gender have on respondents' perceptions of workplace stress?

To address Research Question 2, I conducted a hierarchical multiple linear regression analysis with the three independent variables (social support, work–life conflict, and job performance) and four covariates (staff category, direct reports, age, and gender) as predictors of the dependent variable workplace stress (as shown in Tables 6, 7, and 8). The regression equation for Model 1 (as shown in Tables 6 and 7) was statistically significant: $R^2 = .015$, adjusted $R^2 = .009$, $F(4, 649) = 2.418$, $p < .05$. In Model 1 (as shown in Table 8), the covariate gender was statistically significant (B [unstandardized coefficient] = 2.026, beta [standardized coefficient] = 0.835, $p < .05$); the covariates staff category ($p = .113$), direct reports ($p = .374$), and age ($p = .635$) were not statistically significant. In the final model, two of the covariates, direct reports ($B = -.812$, beta = -.079, $p < .05$) and gender ($B = 2.612$, beta = 0.124, $p < .01$) were statistically significant. Therefore, I conducted a hierarchical multiple regression analysis to investigate the ability of social support, work–life conflict, and job performance to predict levels of workplace stress, after controlling for dummy variables 1-5 direct reports, 6-10 direct reports, 11-20 direct reports, and over 20 direct reports (with no reports as the reference category). I also conducted a hierarchical multiple regression analysis to investigate the ability of social support, work–life conflict, and job performance to predict levels of workplace stress, after controlling for the dummy variable gender (male was coded as zero, the reference-level category). The covariates

staff category and age were not statistically significant. Therefore, I did not conduct further analysis on the covariates staff category and age.

Researchers use dummy variables to stratify categorical variables into mutually exclusive categories such as male or female. Researchers use dummy variables in instances where a nominal variable has two levels or more. Researchers create multiple dummy variables to take the place of the original nominal variable. The first step in this process is to decide the number of dummy variables by using the formula k - 1, where k is the number of levels of the original categorical variable. Researchers use ones and zeros when coding dummy variables to convey all the necessary information related to the dummy variable. The dummy variables (covariates) for direct reports and gender were coded as follows. The covariate direct reports had five levels and four different dummy variables. I designated staff with no direct reports as the reference-level category, which I coded as zero. The four dummy variables for direct reports were 1-5 direct reports, 6-10 direct reports, 11-20 direct reports, and over 20 direct reports. The covariate gender had two levels, males coded as zero (reference-level category) and females coded as 1; therefore, the gender dummy variable code was 1.

In the hierarchical multiple regression analysis, the reference-level category (coded as zero for all covariates' reference values) was the category to which I compared all other categories. In the analysis of the covariate direct reports, staff with no direct reports was the reference-level variable coded as zero, so the unstandardized coefficients in the regression analysis showed the effects the dummy variables 1-5 direct reports, 6-10 direct reports, 11-20 direct reports, and over 20 direct reports had on the dependent

variable workplace stress with reference to no direct reports (reference category). I applied the same analysis structure to the covariate gender. The following subsections contain the details employed in conducting two hierarchical multiple linear regression analyses for the covariates direct reports and gender.

Direct Reports

Tables 9, 10, and 11 show the results for the hierarchical multiple regression analysis of the covariate direct reports and the covariates' derivative dummy variables. I used hierarchical multiple linear regression analysis to evaluate whether statistically significant (at $p < .05$ level) correlations existed between the independent variables, the covariate direct reports and the derivative dummy variables, and the dependent variable. I conducted a hierarchical multiple regression analysis to investigate the ability of social support, work–life conflict, and job performance to predict levels of workplace stress, after controlling for staff category and the derivative dummy variables (1-5 direct reports, 6-10 direct reports, 11-20 direct reports, and over 20 direct reports). Tables 9, 10, and 11 show the correlations among the predictor variables (social support, work–life conflict, job performance, 1-5 direct reports, 6-10 direct reports, 11-20 direct reports, and over 20 direct reports) for this study. I categorized the strength of the relationships between the set of independent variables and the dependent variable based on the values of R: weak = $R \leq 0.40$; moderate = $R = 0.41$-0.60; and strong = $R > 0.60$ (Cohen, 1992). In Model 3, the strength of the relationship (as shown in Table 9) between the independent variables and the dependent variable was weak ($R = 0.132$, $p < .05$). In Model 4, the strength of the relationship (as shown in Table 9) between the independent variables and the dependent

variable was moderate ($R = 0.517$, $p < .01$). The regression equation for Model 3 (as shown in Tables 9 and 10) was statistically significant: $R^2 = .017$, adjusted $R^2 = .011$, $F(4, 652) = 2.886$, $p < .05$. The regression equation for Model 4 (as shown in Tables 9 and 10) was statistically significant: $R^2 = .268$, adjusted $R^2 = .259$, $F(8, 648) = 29.608$, $p < .01$. Both Model 3 and Model 4 were statistically significant at the .05 level. Thus, the null hypothesis was rejected.

Table 9

Hierarchical Multiple Regression Model for Direct Reports

					Change statistics				
Model	*R*	R^2	Adjusted R^2	Std. error of the estimate	R^2 change	*F* change	*df*1	*df*2	Sig. *F* change
3	.132[a]	.017	.011	9.89958	.017	2.886	4	652	.022
4	.517[b]	.268	.259	8.57262	.250	55.367	4	648	.000

[a]Predictors: (constant), 1-5 direct reports, 6-10 direct reports, 11-20 direct reports, and over 20 direct reports. [b]Predictors: (constant), 1-5 direct reports, 6-10 direct reports, 11-20 direct reports, over 20 direct reports, social support, work–life conflict, job performance, and gender.

Table 10

ANOVA for Hierarchical Multiple Regression Model for Direct Reports

Model	Sum of squares	*df*	Mean square	*F*	Sig.
3					
Regression	1131.473	4	282.868	2.886	.022[a]
Residual	63897.078	652	98.002		
4					
Regression	17407.201	8	2175.900	29.608	.000[b]
Residual	47621.349	648	73.490		

Note. Dependent variable is workplace stress.
[a]Predictors: (constant), 1-5 direct reports, 6-10 direct reports, 11-20 direct reports, and over 20 direct reports. [b]Predictors: (constant), 1-5 direct reports, 6-10 direct reports, 11-20 direct reports, over 20 direct reports, social support, work–life conflict, job performance, and gender.

In the first step of the hierarchical multiple regression, the four dummy variables entered were 1-5 direct reports, 6-10 direct reports, 11-20 direct reports, and over 20 direct reports (no direct reports was the reference level variable with a value of zero). Model 3 was statistically significant, $F(4, 652) = 2.886$, $p < .05$ (as shown in Tables 9 and 10) and explained 1.7% of the variance in workplace stress. The second step of the hierarchical multiple regression involved entering four predictors: social support, work–life conflict, job performance, and gender. After I entered social support, work–life conflict, job performance, and gender, the total variance explained by the model was 26.8%, $F(8, 648) = 29.608$, $p < .01$. The introduction of social support, work–life conflict, job performance, and gender explained an additional 25.1% of the variance in workplace stress, after controlling for staff categories and their derivative dummy variables (R^2 change = .250; $p < .01$). In Model 4, all four predictor variables and one of the direct report dummy variables (11-20 direct reports = $p < .01$) were statistically significant from the reference value (no direct reports) for direct reports. Work–life conflict had a higher standardized beta value (beta = .401, $p < .01$) than job performance (beta = -.154, $p < .01$), social support (beta = -.144, $p < .01$), gender (beta = .129, $p < .01$), and 11-20 direct reports (beta = -.102, $p < .01$).

Table 11 includes the SPSS coefficient results for the independent variables and staff category and the derivative dummy variables. A positive or negative *B* coefficient indicates the direction of a relationship. I interpreted the unstandardized coefficient of the dummy variables (1-5 direct reports, 6-10 direct reports, 11-20 direct reports, and over 20 direct reports) against the reference-level category (no direct reports). As shown in Table

11, the dummy variables 1-5 direct reports (p = .247), 6-10 direct reports (p = .687), and over 20 direct reports (p = .067) were not statistically significant. Also shown in Table 11, the difference in the effect on perceptions of workplace stress for staff with 11-20 direct reports relevant to the reference variable (no direct reports) was -6.228. A positive or negative *B* coefficient indicates the direction of the relationship between the dummy variable and the reference level variable (no direct reports). The unstandardized coefficient for staff with 11-20 direct reports was -6.228, which meant that staff with 11-20 direct reports had lower perceptions (-6.228) of workplace stress, on average, than staff with no direct reports.

Table 11

Coefficients for Hierarchical Multiple Regression Model for Direct Reports

	Unstandardized coefficients		Standardized coefficients		
Model	*B*	Std. error	Beta	*t*	Sig.
3					
(Constant)	36.34	.482		75.33	.000
1-5 direct reports	.09	.939	.004	.09	.927
6-10 direct reports	2.31	1.537	.059	1.50	.134
11-20 direct reports	-6.07	2.383	-.100	-2.55	.011
Over 20 direct reports	-3.30	2.213	-.058	-1.49	.137
4					
(Constant)	44.10	2.926		15.07	.000
1-5 direct reports	-.75	.823	-.032	-.92	.360
6-10 direct reports	1.31	1.346	.034	.97	.330
11-20 direct reports	-6.23	2.095	-.102	-2.97	.003
Over 20 direct reports	-3.54	1.928	-.063	-1.83	.067
Social support	-1.46	.367	-.144	-3.99	.000
Work–life conflict	.86	.074	.401	11.63	.000
Job performance	-.41	.095	-.154	-4.35	.000
Gender	2.72	.741	.129	3.67	.000

Note. Dependent variable is workplace stress.

Gender

Tables 12, 13, and 14 show the results for the hierarchical multiple regression analysis of the covariate gender (males coded as zero, the reference-level category). I used hierarchical multiple regression analysis to evaluate whether statistically significant (at $p < .05$ level) correlations existed between the independent variables, the covariate gender (males coded as zero, the reference-level category), and the dependent variable. I conducted a hierarchical multiple regression analysis to investigate the ability of social support, work–life conflict, and job performance to predict levels of workplace stress, after controlling for gender (males coded as zero, the reference-level category). Tables 12, 13, and 14 show the correlations among the predictor variables (social support, work–life conflict, job performance, gender, and 11-20 direct reports) for this study. I categorized the strength of the relationships between the set of independent variables and the dependent variable based on the values of R: weak = $R \leq 0.40$; moderate = $R = 0.41$-0.60; and strong = $R > 0.60$ (Cohen, 1992). In Model 5, the strength of the relationship (as shown in Table 12) between the independent variables and the dependent variable was weak ($R = 0.105$, $p < .01$). In Model 6, the strength of the relationship (as shown in Table 12) between the independent variables and the dependent variable was moderate ($R = 0.511$, $p < .01$). The regression equation for Model 5 (as shown in Tables 12 and 13) was statistically significant: $R^2 = .011$, adjusted $R^2 = .009$, $F(1, 655) = 7.257$, $p < .01$. The regression equation for Model 6 (as shown in Tables 12 and 13) was statistically significant: $R^2 = .262$, adjusted $R^2 = .256$, $F(5, 651) = 46.111$, $p < .01$. Both Model 5 and Model 6 were statistically significant at the .05 level.

Table 12

Hierarchical Multiple Regression Model for Gender

					Change statistics				
Model	*R*	R^2	Adjusted R^2	Std. error of the estimate	R^2 change	*F* change	*df*1	*df*2	Sig. *F* change
5	.105[a]	.011	.009	9.90920	.011	7.257	1	655	.007
6	.511[b]	.262	.256	8.58871	.251	55.223	4	651	.000

[a]Predictors: (constant), gender. [b]Predictors: (constant), gender, social support, work–life conflict, job performance, and 11-20 direct reports.

Table 13

ANOVA for Hierarchical Multiple Regression Model for Gender

Model	Sum of squares	*df*	Mean square	*F*	Sig.
5					
Regression	712.612	1	712.612	7.257	.007[a]
Residual	64315.938	655	98.192		
6					
Regression	17006.960	5	3401.392	46.111	.000[b]
Residual	48021.591	651	73.766		

Note. Dependent variable is workplace stress.
[a]Predictors: (constant), gender. [b]Predictors: (constant), gender, social support, work–life conflict, job performance, and 11-20 direct reports.

In the first step of the hierarchical multiple regression, the covariate gender was entered (male was the reference-level category). Model 5 was statistically significant, $F(1, 655) = 7.257$, $p < .01$ (see Tables 12 and 13) and explained 1.1% of the variance in workplace stress. In the second step, I entered four predictors: social support, work–life conflict, job performance, and 11-20 direct reports. After entering social support, work–life conflict, job performance, and 11-20 direct reports, the total variance explained by the model was 26.2%, $F(5, 651) = 46.111$, $p < .01$. The introduction of social support, work–life conflict, job performance, and 11-20 direct reports explained an additional

25.1% of the variance in workplace stress, after controlling for gender (R^2 change = .251; $p < .01$). In Model 6, all four predictor variables and the covariate gender were statistically significant, with work–life conflict recording a higher beta value (beta = .397, $p < .01$) than job performance (beta = -.157, $p < .01$), social support (beta = -.146, $p < .01$), gender (beta = .132, $p < .01$), and 11-20 direct reports (beta = .098, $p < .01$).

Table 14 includes the SPSS coefficient results for the independent variables and staff category and the derivative dummy variables. A positive or negative *B* coefficient indicates the direction of the relationship. I interpreted the unstandardized coefficient of gender (females) against its relevance to the reference level (males, coded as zero). The difference in the effect on perceptions of workplace stress (as shown in Table 14) for gender (females) relevant to the reference level (zero for males) was 2.773. The unstandardized coefficient for female staff was 2.773, which meant female staff have higher perceptions (2.773) of workplace stress, on average, than male staff do.

Table 14

Coefficients for Hierarchical Multiple Regression Model for Gender

	Unstandardized coefficients		Standardized coefficients		
Model	B	Std. error	Beta	*t*	Sig.
5					
(Constant)	34.786	.668		52.069	.000
Gender	2.207	.819	.105	2.694	.007
6					
(Constant)	44.261	2.930		15.108	.000
Gender	2.773	.734	.132	3.779	.000
Social support	-1.485	.367	-.146	-4.046	.000
Work–life conflict	.856	.073	.397	11.651	.000
Job performance	-.423	.095	-.157	-4.431	.000
11-20 direct reports	-5.993	2.077	-.098	-2.885	.004

Note. Dependent variable is workplace stress.

Summary to Research Questions

In conclusion, the results from this study for Research Question 1 showed that statistically significant (at the .05 level) correlations existed between employees' perceptions of social support, work–life conflict, job performance, and workplace stress in the subject Irish HEI. In the analysis of the correlations, I categorized the strength of the relationships between the set of independent variables and the dependent variable based on the values of R: weak = $R \leq 0.40$, moderate = R = 0.41-0.60, and strong = $R >$ 0.60 (Cohen, 1992). The results (as shown in Table 8) revealed that the covariates staff category (p = .367) and age (p = .544) were not statistically significant in predicting the values for the dependent variable workplace stress. The results (as shown in Tables 6 and 8) showed social support had a moderate negative relationship with workplace stress (R = .504; B = -1.475) after controlling for staff category, direct reports, age, and gender. Work–life conflict (as shown in Tables 6 and 8) had a moderate positive relationship with workplace stress (R = .504, B = 0.869), and job performance (as shown in Tables 6 and 8) had a moderate negative relationship with workplace stress (R = .504, B = -0.422). Social support, work–life conflict, and job performance had statistically significant (as shown in Tables 6 and 8) relationships with workplace stress ($p > .01$). Therefore, staff with low levels of social support had higher than expected levels of workplace stress, staff with higher levels of job performance had lower than expected levels of workplace stress, and staff with higher work–life conflicts had higher than expected levels of workplace stress.

The results (as shown in Table 8) from this study for Research Question 2 revealed that the covariates staff category (p = .367) and age (p = .544) were not

statistically significant in predicting the values for the dependent variable workplace stress. The results (as shown in Tables 8, 9, and 12) revealed that the covariates direct reports ($p < .05$) and gender ($p < .01$) were statistically significant in predicting the values for the dependent variable workplace stress. The results (as shown in Table 9) showed that Model 3 and 4 for the covariate direct reports were statistically significant; Model 3: $R^2 = .017$, adjusted $R^2 = .011$, $F(4, 652) = 2.886$, $p < .05$; and Model 4: $R^2 = .268$, adjusted $R^2 = .259$, $F(8, 648) = 29.608$, $p < .01$. The results (as shown in Table 12) showed that Model 5 and 6 for the covariate gender were statistically significant; Model 5: $R^2 = .011$, adjusted $R^2 = .009$, $F(1, 655) = 7.257$, $p < .01$; and Model 6: $R^2 = .262$, adjusted $R^2 = .256$, $F(5, 651) = 46.111$, $p < .01$.

The results (as shown in Table 11) revealed that the difference in the effect on perceptions of workplace stress was lower for staff with 11-20 direct reports ($B = -6.228$) than for the reference-level category (no direct reports). Also, the difference (as shown in Table 14) in the effect on perceptions of workplace stress for gender (females) was higher ($B = 2.773$) than for the reference-level category (males). The largest coefficient (0.405) indicated the independent variable work–life conflict (as shown in Table 8) had the greatest relative influence on the dependent variable workplace stress.

Interpretation of Findings

The theoretical framework for this study consisted of a combination of ERI theory, expectancy theory, and equity theory. The theoretical framework reflects the expectations of employees and managers of an equitable reward and recognition for expended effort (Al-Zawahreh & Al-Madi, 2012). Researchers using the ERI model have

directly linked ERI with negative impacts on health (Olejniczak & Salmon, 2014). Social reciprocity and social exchange reflect the norm of return in which separate rewards reciprocate efforts (Ganster & Perrewe, 2011). Researchers have predicted that failure to reciprocate this will lead to negative emotions and sustained stress (Branham, 2012). However, reciprocity is likely to lead to positive emotions that will promote positive health and well-being (Parker, 2014).

Social support is a critical feature of the workplace reflected in the reciprocation of good relationships among employees and between employees and leaders (Chandra, 2012). Social support refers to an individual's belief that he or she is (a) valued, (b) informed, (c) communicated with, (d) emotionally cared for, and (e) part of a relationship group or network (Fernandes & Tewari, 2012). In particular, support from leadership and coworkers has a positive effect on well-being; employees who feel supported are likely to feel less stressed and believe they receive fair rewards for their efforts (Demerouti et al., 2014; Fischer & Martinez, 2013; Thi Giang et al., 2013).

The results from this study (as shown in Tables 6 and 8) depicted a moderate negative relationship (R = .504; B = -1.475) between social support and workplace stress, which means that employees with low levels of social support are likely to have higher levels of workplace stress, which endorses the findings of previous research and the theoretical framework. Furthermore, the results (as shown in Tables 6 and 8) showed a moderate negative relationship (R = .504; B = -0.422) between job performance and workplace stress; employees with higher levels of job performance are likely to have lower levels of workplace stress. Therefore, if leaders enable and empower staff to

improve job performance levels, they should witness a reduction in workplace stress. The findings on job performance are not in keeping with previous research, which showed a curvilinear relationship between job performance and workplace stress (Adaramola, 2012; Savage & Torgler, 2012). The results from this study do not support such a curvilinear relationship between job performance and workplace stress. Researchers had previously identified a positive relationship between stress and performance on the basis that employees sometimes work better under pressure, that is, when there is enough pressure on individuals to focus their attention but not so much that it disrupts their performance (Domínguez, 2013; M. Y. Leung et al., 2011). The results from this study do not support a positive relationship between job performance and workplace stress.

The results from this study (as shown in Tables 6 and 8) showed higher levels of social support predicted reduced levels of workplace stress. Workplace stressors include poor relationships between managers and staff, inadequate communication, and lack of support (McVicar et al., 2013). The results from this study supported the findings of researchers who have shown that a lack of support and poor relationships (social support) reflect higher levels of workplace stress (McVicar et al., 2013) and that regular interactions between managers and employees (social support) have a direct positive effect on employee work output (Evers et al., 2014).

Olejniczak and Salmon (2014) noted that a lack of management recognition for employee effort leads to high ERI. An employee who experiences stressful working conditions or job insecurity can benefit from social support and employee–environment fit. Social support can give rise to perceptions of reward and reciprocity and reduce

employees' perception of high ERI (Olejniczak & Salmon, 2014; Schreurs et al., 2012). The results from this study showed a negative relationship between social support levels and levels of workplace stress, which indicated that high levels of social support should reduce workplace stress levels. This finding supported research by Olejniczak and Salmon (2014) and Schreurs et al. (2012).

Loughlin et al. (2012) noted growing evidence that the same organizational behaviors by male and female leaders do not lead to the same results. The results (as shown in Table 12) from this study supported differences between males and females as the results indicated that statistically significant differences existed in the relationships between the independent variables (social support, work–life conflict, and job performance), the covariate gender and the dependent variable workplace stress based (R^2 = .262, $p < .01$). The results showed the difference (as shown in Table 14) in the effect on perceptions of workplace stress for gender (females) was higher (B = 2.773) than for the reference-level category (males); female staff exhibited higher than expected levels of workplace stress. These results supported the findings of other researchers who found that men are likely to experience work–life conflict and high ERI that result in workplace stress (Allisey et al., 2012; Feldt et al., 2013; Giannikis & Mihail, 2011); however, for the same levels of ERI and for the other predictor variables, the effect is higher for women (B = 2.773).

The results from this study (as shown in Table 8) reflected that the independent variable work–life conflict (beta = .405) had the greatest influence on the dependent variable workplace stress. Findings from Aumann et al. (2011) showed that men who

spent more time with their families as part of their work–life strategy reported a better quality of life. Given that, traditionally, the focus of work–life conflict policies has been on women (Matheson & Rosen, 2012), the results indicated that work–life conflicts are relevant to both male staff and female staff but, in light of the significance of the gender effect, higher for women (B = 2.773); thus, it appears the traditional focus was relevant.

Researchers have described the relationship between work and life as being, for example, (a) family friendly, (b) balanced, (c) conflicted, and (d) flexible (Jang et al., 2011; Murphy & Doherty, 2011). Across the globe, for both employees and leaders of organizations, work–life conflict relates to increased workplace stress arising from the globalization of markets and demands for greater productivity and efficiency (A. S. Bell et al., 2012). The results from this study (as shown in Tables 8) showed the independent variable work–life conflict had the greatest influence on the dependent variable workplace stress (beta = .405). Staff with higher levels of work–life conflict had higher than expected levels of workplace stress. Higher levels of work–life conflict reflected higher levels of workplace stress, and higher levels of workplace stress reflected lower levels of job performance. The results also showed a moderate negative relationship (R = .504; B = -0.422) between job performance and workplace stress, which means employees with higher levels of job performance had lower than expected levels of workplace stress. Employers often find it difficult to strike the right balance between accommodating flexible work arrangements and eliciting job performance from workers to deliver value for money for the business (Kossek, Baltes, et al., 2011). The results (as

shown in Table 8) from this study clearly depicted that high levels of work–life conflict resulted in higher than expected levels of workplace stress.

Prolonged exposure to workplace stress can negatively affect job performance by reducing interest in work activities and can lead to physical ill health and psychological symptoms of distress (Spurgeon et al., 2012). The results (as shown in Table 8) showed a negative relationship between job performance and workplace stress (B = -0.422). Exposure to an environment conducive to high levels of job performance can reduce levels of workplace stress (Olejniczak & Salmon, 2014). The results from this study depicted that increased levels of job performance reflected lower levels of workplace stress. Abugre (2012) found that high-performing organization leaders succeeded in reducing levels of workplace stress by fostering and nurturing a climate of social interaction whereby managers and team members engaged meaningfully and team members participated in organizational activities and decision-making processes. Lopez (2011) noted that employees tended to have lower levels of workplace stress as a result of leaders paying attention to the work environment and creating a climate conducive to high levels of job performance by encouraging social support from peers, family, and managers.

The results from this study (as shown in Tables 6 and 8) showed a statistically significant moderate negative relationship between job performance and workplace stress for all staff (R = .504, B = -0.422). Therefore, a tertiary education work environment conducive to high levels of job performance should reduce levels of workplace stress for academic, support, research, and other staff. Previously, researchers found that the

globalization, restructuring, and massification of tertiary education since 2000 had raised levels of workplace stress for HEI employees and had lowered organizational performance (Shah, 2013). Sun, Wu, and Wang (2011) found that most university academic staff in China are likely to incur serious workplace stress over the course of their careers due to increased demands brought about by the massification of tertiary education. Furthermore, in a review of previous studies, Safaria (2013) indicated that many higher education academic staff experienced medium to high incidences of workplace stress. The results from this study (as shown in Tables 6, 7, and 8) showed that all staff (academic, support, research, and other staff) in the subject HEI had statistically significant relationships between social support, work–life conflict, and job performance and workplace stress after controlling for staff category, direct reports, age, and gender.

The results (as shown in Tables 6-8) showed that statistically significant relationships existed between employees' perceptions of social support, work–life conflict, job performance, and workplace stress. Additionally, the results (as shown in Tables 9-11) showed statistically significant results for staff with 11-20 direct reports ($p < .01$, $B = -6.228$). The results showed (as shown in Tables 9-11) that teams of 1-5 direct reports, 6-10 direct reports, and over 20 direct reports were not statistically significant. Therefore, a question arises as to the optimal team size within the subject HEI. The results of this study could not answer this question.

The theoretical framework supported the interpretation of the findings because perceptions of equity, reciprocation, and expectancy of fairness influence perceptions of social support, work–life conflict, job performance, and workplace stress (Olejniczak &

Salmon, 2014). The findings from this study supported the findings of Hansen et al. (2014) and M. R. Smith et al. (2012), who demonstrated that employees with robust interpersonal networks, quality coworker relationships, and low levels of work–life conflict are more likely to have lower levels of workplace stress. Furthermore, the results (as shown in Tables 6-8) from this study showed that employees with high levels of job performance exhibited lower than expected levels of workplace stress.

Application to Professional Practice

Findings from this research can make a significant contribution to the business practice and processes in HEIs. Based on the results from this study, I have shown that workplace stress affects the overall performance of the organization, as workplace stress has a moderate negative relationship with social support and job performance and a moderate positive relationship with work–life conflict, and with the well-being of employees. Organizational performance metrics such as (a) employee tardiness, (b) absenteeism, (c) low productivity, (d) high employee turnover, (e) wasted investment in training, (f) increased costs due to training replacements for sick leave, (g) depression, (h) aggression, (i) violence, and (j) lower profits reflect the impact of workplace stress on organizational performance (Safaria, 2014; Spurgeon et al., 2012). The results showed that social support, work–life conflict, and job performance had statistically significant relationships to workplace stress and that leaders can reduce workplace stress by increasing social support for employees, which could reduce the level of work–life conflict experienced by employees. Based on the findings and conclusions from this study, I expect improved job performance to reduce levels of workplace stress.

Professional practices and behaviors such as (a) openness and fairness, (b) balanced and equitable workloads, (c) transparency and integrity, (d) empowerment, (e) communication, (f) employee development and involvement, (g) speedy conflict resolution, (h) family-friendly policies, (i) flexible work arrangements, and (j) reciprocating effort with reward are requirements for improved business performance (Pridgeon & Whitehead, 2013). Given that workplace stress affects the performance of an organization (Safaria, 2014), it is incumbent on academic institutions' leaders and managers to implement professional practices across their organizations that are conducive to enhancing job performance and reducing levels of workplace stress.

In this study, I have highlighted issues that relate to specific staff groups; these issues should form the basis of policies, procedures, interventions, and professional practice development. Specifically, professional practices embedded in the principles of increased social support for staff groups are a precursor to reducing levels of workplace stress. Managers with goals for developing professional practice should focus on improving the organizational environment so that the environment is conducive to better organizational performance. Additionally and based on the results of this study, leaders who integrate flexibility and family friendly procedures with professional practices can expect to see reduced levels of workplace stress across professional grades. Improved professional practices and interventions embedded in the principles of social support, job performance, and work–life conflict should improve the subject institution's competitive advantage to attain its strategic business goals (McVicar et al., 2013).

Implications for Social Change

The results from this study may facilitate social change if leaders implement social support and work–life strategies to reduce levels of workplace stress. Reduced levels of workplace stress should improve the quality of people's everyday lives in the subject institution. Given that individuals have limited time, energy, and resources to cope with their multiple responsibilities, one role can sometimes transcend into another and give rise to conflict and high ERI (Cheng & McCarthy, 2013; Feldt et al., 2013). Based on the results of this study, I have identified implications for the social change agenda by generating new knowledge related to social support, work–life conflict, job performance, and workplace stress in an Irish HEI, and this new knowledge has the potential to improve the health and well-being of the subject population and perhaps benefit employees at other HEIs. The development of social support and work–life conflict interventions and initiatives in the workplace could generate positive social outcomes, including higher levels of social support, improved job performance, and lower levels of workplace stress, which should benefit all members of the immediate and wider communities. Benefits include, but are not limited to, (a) openness and fairness, (b) balanced and equitable workloads, (c) transparency and integrity, (d) empowerment, (e) enhanced communication, (f) employee development and involvement, (g) speedy conflict resolution, (h) family-friendly policies, and (i) flexible work arrangements.

Possible means for catalyzing social change include organization leaders introducing mechanisms to monitor workplace stress to establish when it might occur in the staff groups identified in this study. Social change programs for meeting the particular

needs of the different staff groups should lead to higher levels of social support, lower levels of work–life conflict, higher levels of job performance, and lower levels of workplace stress. Having identified the relationships between the independent variables, the covariates, and the dependent variable and recommended areas for interventions, leaders and managers could embed the findings of this study in the social change agenda to lower levels of workplace stress for the benefit of all employees and their networks. When implemented, the strategies could improve the quality of all affected employees' everyday lives and the lives of their families.

Recommendations for Action

Researchers and organizational leaders have identified workplace stress as one of the most significant problems facing leaders of organizations in modern times (Kelloway et al., 2012). Compared to employees with normal levels of workplace stress, employees with high levels of workplace stress can cost organizations more in terms of lower productivity and higher intervention costs (Wolever et al., 2012). The results from this study showed that low levels of social support and high levels of work–life conflict relate to increased levels of workplace stress. I also found that higher levels of job performance related to lower levels of workplace stress. Therefore, leaders and managers must focus on policies, procedures, processes, and interventions that proactively address work–life conflicts and nurture a work environment that is conducive to high levels of social support and job performance.

Organizational leaders and managers have an opportunity to play pivotal roles by providing ongoing training and development programs to increase employee awareness

and competencies for social support, work–life conflict, and job performance issues. Senior managers should take opportunities to develop a culture that values all members. In addition, leaders should develop interventions appropriate to each staff group. Training and development programs that address workplace stress issues should positively affect the lives of all employees, and these effects should transcend into employees' nonwork lives, thus creating a positive social contribution beyond the workplace.

Not only do leaders and managers have responsibilities to cope with work–life conflicts but also individual employees have a responsibility to cope with work–life issues and contribute positively to their networks. The results from this study indicate that individual employees should become more self-aware of their roles in the workplace and the expected effects of their roles on their social networks. Individual employees may engage proactively in measures to improve social support, reduce work–life conflicts, and improve job performance, thereby reducing workplace stress. Based upon my findings, I would expect employees who perform at a high level to experience lower levels of workplace stress, which could create opportunities for organization leaders, managers, and employees to achieve their goals and objectives.

I will disseminate the findings from this study to all academic, support, research, and other staff of the subject institution by circulating the results to all employees and presenting the results to management groups and individuals at team briefings. Training and development programs that leaders may put in place based on the results from this study will inform managers and individuals on how to reduce workplace stress. I plan to circulate the results from this study to other HEIs in Ireland, including the Higher

Education Authority, the Department of Education and Skills, and the Irish University Association. The results from this study are suitable for submission for publication in journals such as *Work & Stress*, *Human Resource Management Journal, European Management Journal*, *Journal of Occupational Stress*, and *Journal of Higher Education*.

Recommendations for Further Study

The participants in this study were employees of one HEI in Ireland. The results from the study showed that social support, work–life conflict, and job performance had statistically significant relationships with workplace stress. No significant differences existed for the covariates staff category and age, although the covariates direct reports (11-20 direct reports) and gender had statistically significant relationships with workplace stress. If these results are representative of employees in other Irish HEIs remains unknown. Therefore, it would be beneficial for leaders of other HEIs to replicate the study in their institutions for consistency and relevance across institutions.

Previous researchers identified a positive relationship between stress and performance on the basis that employees sometimes work better under pressure, that is, when there is enough pressure on individuals to focus their attention but not so much that it disrupts their performance (Domínguez, 2013; M. Y. Leung et al., 2011). The results from this study showed a negative relationship between job performance and workplace stress such that higher levels of performance predicted lower levels of workplace stress in the subject HEI. Therefore, the question arises as to why researchers differ in reporting directional relationships for job performance and workplace stress. I recommend that researchers carry out further research on the relationship between job performance and

workplace stress to determine the true directional relationship. Further research could extend to moderation and mediation model analysis of the relationships between social support, work–life conflict, job performance, and workplace stress. Another question arises regarding which levels of workplace stress reflect optimum employee engagement for staff in the subject institution. I recommend that leaders in the subject institution carry out further research on the optimum levels of employee engagement that positively affect job performance.

The analysis revealed statistically significant results for staff with 11-20 direct reports. Therefore, a question arises as to the optimal team size within the subject HEI. I recommend that leaders in the subject institution carry out further research on team size and its relationship with workplace stress. The results showed that female staff exhibited higher than expected levels of workplace stress. Researchers should consider why this is the case because information about gender could inform policies for coping with workplace stress.

In this study, I did not examine the specific reasons for the presence of workplace stress among the respondents beyond the relationship of workplace stress with social support, work–life conflict, and job performance. To have a better understanding of the pressure points in these areas, I recommend further research into the specific reasons for workplace stress in the areas of social support and work–life conflict. Finally, researchers using qualitative designs could obtain further insights to the experiences and meanings of the relationships between social support, work–life conflict, job performance, and

workplace stress through analyzing individuals' personal experiences (e.g., through case studies or phenomenological studies).

Reflections

Although completing my doctoral study journey was challenging, it was also a journey of enlightenment, self-realization, and satisfaction and a source of pride. The chosen topic for this study arose from my deep desire and motivation to enhance the work environment for employees of the subject institution. I hope my findings and recommendations will improve the working lives of employees and the experience of students in both the subject HEI and other Irish HEIs. At the beginning of this journey, I had preconceived ideas that job performance had a considerable relationship with workplace stress but social support and work–life conflict had no significant relationship with workplace stress. However, having reviewed the literature, I realized that I should not be presumptuous about the results of the study. Another preconceived notion that I held was that workplace stress was a bigger issue for academic staff than for support staff. However, the results showed that this was not the case. Interaction bias with the subject HEI population was not an issue because I surveyed the entire staff population of the subject institution with a confidential online survey. Therefore, I had no influence on the participants' responses.

The cost of workplace stress exceeds $300 billion per annum in the United States, and excessive workplace stress results in lower productivity, increased costs, and lower profits (Spurgeon et al., 2012). Therefore, there is a compelling case to reduce excessive workplace stress. Based on the results of this study, I have shown that leaders can reduce

workplace stress by designing and deploying strategies for improving social support, work–life conflict, and job performance in their organizations. Organizational leaders have a responsibility to educate and train their employees and managers so that both groups can competently reciprocate social support, deal with work–life conflict issues, and improve job performance.

Summary and Study Conclusions

The examination and establishment of particular relationships between social support, work–life conflict, and job performance with workplace stress is significant for the leaders of the subject institution. The results will provide leaders with information about these relationships, which they can use to develop and deploy strategies to cope with workplace stress. In turn, these strategies can increase productivity, reduce costs, increase profits, and improve the quality of people's everyday lives. The results showed that the extent of the relationships between the independent variables social support, work–life conflict, and job performance and the dependent variable workplace stress while controlling for staff category, direct reports, age, and gender. The results also showed that overall workplace stress levels did not differ significantly for the covariates staff category and age, but did significantly differ for the covariates direct reports and gender. In conclusion, the results from this study provide information to leaders, professional practitioners, researchers, and managers of the subject HEI, and potentially the leaders of other HEIs, for developing and deploying strategies for reducing workplace stress in organizations.

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Appendix A: Staff Well-Being Survey

Your Job

1. Which Faculty/Department do you belong to?

(Faculty)

Question type: demographic Answer type: single

(0) The Faculty of Arts, Humanities & Social Sciences

(1) The Faculty of Education & Health Sciences

(2) The Faculty of Science and Engineering

(3) The Business School

(4) Building & Estates Division

(5) The Human Resources Division

(6) The Finance Division

(7) Student Affairs Division

(8) Research Office

(9) Information Technology Division

(10) Library & Information Services Division

(11) Corporate Secretary's Office

(12) Campus Life Services

(13) Sports & Recreation

(14) Teaching & Learning

(15) Graduate School

(16) President's Office

(17) Corporate Affairs

(18) Office of the Vice President Academic & Registrar area (e.g. Assoc. Registrar's Office, Associate VP Academic, Marketing, Quality, Institutional Research Office, Technology Advisor etc.)

(19) International Education Division

(20) Continuing Professional Education

(21) Cooperative Education & Careers Division

(22) Other

2. More specifically, do you belong to:

(Arts, Humanities and Social Sciences)

Question type: leap Answer type: single

This is a leap question triggered by 'Faculty: The Faculty of Arts, Humanities & Social Sciences'

(0) Culture and Communication

(1) History

(2) Irish World Academy of Music and Dance

(3) Law

(4) Modern Languages and Applied Linguistics

(5) Politics and Public Administration

(6) Sociology

3. More specifically, do you belong to:

(Education and Health Sciences)

Question type: leap Answer type: single

This is a leap question triggered by 'Faculty: The Faculty of Education & Health Sciences'

(0) Clinical Therapies

(1) Education and Professional Studies

(2) Graduate Entry Medical School

(3) Nursing and Midwifery

(4) Physical Education and Sport Sciences

(5) Psychology

4. More specifically, do you belong to:

(Science and Engineering)

Question type: leap Answer type: single

This is a leap question triggered by 'Faculty: The Faculty of Science and Engineering'

(0) Architecture

(1) Chemical and Environmental Science

(2) Civil Engineering and Materials Science

(3) Computer Science and Information Systems

(4) Design and Manufacturing Technology

(5) Electronic and Computer Engineering

(6) Life Sciences

(7) Mathematics and Statistics

(8) Mechanical, Aeronautical and Biomedical Engineering

(9) Physics and Energy

5. More specifically, do you belong to:

(Business School)

Question type: leap Answer type: single

This is a leap question triggered by 'Faculty: The Business School'

(0) Accounting and Finance

(1) Economics

(2) Management and Marketing

(3) Personnel and Employment Relations

6. Which staff category do you belong to?

(Staff category)

Question type: supplementary Answer type: single

(0) Academic staff

(1) Support staff

(2) Research staff

(3) Other

7. How many years have you worked for the University of Xxxxx?

(Length of service)

Question type: demographic Answer type: single

(0) Less than 12 months

(1) 1-5 years

(2) 6-10 years

(3) 11-15 years

(4) 16-20 years

(5) 21-30 years

(6) Over 30 years

8. How satisfied were you with your induction to the University?

(Satisfied induction)

Question type: leap Answer type: single

This is a leap question triggered by 'Length of service: Less than 12 months'

(0) Very satisfied

(1) Satisfied

(2) Neither satisfied nor dissatisfied

(3) Dissatisfied

(4) Very dissatisfied

(5) Didn't have an induction

9. How satisfied were you with your induction to your area of work?

(Satisfied area induction)

Question type: leap Answer type: single

This is a leap question triggered by 'Length of service: Less than 12 months'

(0) Very satisfied

(1) Satisfied

(2) Neither satisfied nor dissatisfied

(3) Dissatisfied

(4) Very dissatisfied

(5) Didn't have an induction

10. How long have you been in your current role?

(Current Role)

Question type: demographic Answer type: single

(0) Less than 2 years

(1) 2-5 years

(2) 6-10 years

(3) 11-15 years

(4) 16-20 years

(5) 21-30 years

(6) Over 30 years

11. How many people directly report to you (those for whom you have direct line management responsibility)?

(People report to you)

Question type: demographic Answer type: single

(0) None

(1) 1-5

(2) 6-10

(3) 11-20

(4) Over 20

12. Do you work at the University:

(Employment Basis)

Question type: demographic Answer type: single

(0) Full-time permanent

(1) Part-time permanent

(2) Full-time temporary

(3) Part-time temporary

13. In an average week, how many hours are you contracted to work?

(Contracted hours)

Question type: demographic Answer type: single

(0) 1-10 hours

(1) 11-20 hours

(2) 21-30 hours

(3) 31-40 hours

(4) 41 or more hours

14. In an average week, how many hours do you work over and above your contracted hours?

(Unpaid hours)

Question type: demographic Answer type: single

(0) 0 hours

(1) Up to 5 hours

(2) 6-10 hours

(3) More than 11 hours

15. How often are your days off cancelled?

(Days off cancelled)

Question type: supplementary Answer type: single

(0) Never

(1) Rarely

(2) Sometimes

(3) Often

(4) Always

You and Your Family

16. Are you:

(Gender)

Question type: demographic Answer type: single

(0) Male

(1) Female

17. What is your age?

(Age)

Question type: demographic Answer type: single

(0) 25 years or under

(1) 26-35 years

(2) 36-45 years

(3) 46-55 years

(4) 56 years or over

18. What is your ethnic background?

(Ethnic origin)

Question type: demographic Answer type: single

(0) Asian

(1) Black

(2) Mixed

(3) White

(4) Other

19. The Irish Disability Act 2005 includes the following definition: "A substantial restriction in the capacity of the person to carry on a profession, business or occupation in the Irish State or to participate in social or cultural life in the Irish State by reason of an enduring physical, sensory, mental health or intellectual impairment." Do you consider yourself to have a disability within the definition?

(Disability)

Question type: demographic Answer type: single

(0) Yes

(1) No

20. Are you:

(Marital status)

Question type: supplementary Answer type: single

(0) Married / Civil Partnership

(1) Living with partner

(2) Single

(3) Separated

(4) Divorced

(5) Widowed

21. If you are married/living with a partner, does he/she work?

(Partner in employment)

Question type: leap Answer type: single

This is a leap question triggered by 'Marital status: Living with partner, Married / Civil Partnership'

(0) Yes

(1) No

22. If Yes, is the work full- or part-time?

(Partner in full- or part-time work)

Question type: leap Answer type: single

This is a leap question triggered by 'Partner in employment: Yes'

(0) Full-time

(1) Part-time

23. Number of children aged 18 years or under for whom you have responsibility:

(Number of children aged 18 years or under)

Question type: supplementary Answer type: single

(0) None

(1) 1

(2) 2

(3) 3

(4) 4

(5) 5

(6) More than 5

24. Number of children aged over 18 years for whom you have responsibility:

(Number of children aged over 18 years)

Question type: supplementary Answer type: single

(0) None

(1) 1

(2) 2

(3) 3

(4) 4

(5) 5

(6) More than 5

25. Do you have any caring responsibilities for an elderly relative or a relative with a disability?

(Primary carer)

Question type: supplementary Answer type: single

(0) Yes

(1) No

26. How often do you meet the government's recommended weekly guidelines for physical activity? (150 minutes of moderate-intensity physical activity every week)

(ideal exercise)

Question type: supplementary Answer type: single

(0) Always

(1) Usually

(2) Sometimes

(3) Rarely

(4) Never

27. Do you smoke cigarettes?

(Smoke)

Question type: supplementary Answer type: single

(0) Yes

(1) No

28. How many per day do you smoke on average?

(Number of cigarettes per day)

Question type: leap Answer type: single

This is a leap question triggered by 'Smoke: Yes'

(0) 1-5 per day

(1) 6-10 per day

(2) 11-20 per day

(3) 21-30 per day

(4) 31-40 per day

(5) More than 40 per day

29. In the last 3 months, have you been smoking:

(Smoking change in the last 3 months)

Question type: leap Answer type: single

This is a leap question triggered by 'Smoke: Yes'

(0) More than usual?

(1) Same as usual?

(2) Less than usual?

30. Do you drink alcohol?

(Drink alcohol)

Question type: supplementary Answer type: single

(0) Yes

(1) No

31. How many units do you drink per week on average? (1 unit = half a pint of beer, 1 small glass of wine or 1 measure of spirits)

(Units of alcohol per week on average (1 unit = half a pint of beer, 1 small glass of wine or 1 measure of spirits))

Question type: leap Answer type: single

This is a leap question triggered by 'Drink alcohol: Yes'

(0) 1-5 units

(1) 6-10 units

(2) 11-20 units

(3) 21-30 units

(4) 31-40 units

(5) More than 40 units

32. In the last 3 months, have you been drinking:

(Drinking change in the last 3 months)

Question type: leap Answer type: single

This is a leap question triggered by 'Drink alcohol: Yes'

(0) More than usual?

(1) Same as usual?

(2) Less than usual?

Your Lifestyle

33. Do you find time to relax and wind down?

(Find time to relax and wind down)

Question type: supplementary Answer type: single

(0) Always

(1) Usually

(2) When possible

(3) Not usually

(4) Never

Psychological Well-being

For the terms below, indicate the extent to which you have felt like this during the last 3 months at work.

34. Inspired

(Inspired)

Question type: core Answer type: single

(1) Very slightly or not at all

(2) A little

(3) Moderately

(4) Quite a bit

(5) Very much

35. Alert

(Alert)

Question type: core Answer type: single

(1) Very slightly or not at all

(2) A little

(3) Moderately

(4) Quite a bit

(5) Very much

36. Excited

(Excited)

Question type: core Answer type: single

(1) Very slightly or not at all

(2) A little

(3) Moderately

(4) Quite a bit

(5) Very much

37. Enthusiastic

(Enthusiastic)

Question type: core Answer type: single

(1) Very slightly or not at all

(2) A little

(3) Moderately

(4) Quite a bit

(5) Very much

38. Determined

(Determined)

Question type: core Answer type: single

(1) Very slightly or not at all

(2) A little

(3) Moderately

(4) Quite a bit

(5) Very much

39. Happy

(Happy)

Question type: core Answer type: single

(1) Very slightly or not at all

(2) A little

(3) Moderately

(4) Quite a bit

(5) Very much

40. Contented

(Contented)

Question type: core Answer type: single

(1) Very slightly or not at all

(2) A little

(3) Moderately

(4) Quite a bit

(5) Very much

6 Essentials

Select one of the six categories from Strongly Disagree to Strongly Agree for each statement as it applies to you.

41. My current job goals are specific

(Specific job goals)

Question type: core Answer type: single

(1) Strongly Disagree

(2) Disagree

(3) Slightly Disagree

(4) Slightly Agree

(5) Agree

(6) Strongly Agree

42. I am committed to achieving the goals of my job

(Committed to achieving job goals)

Question type: core Answer type: single

(1) Strongly Disagree

(2) Disagree

(3) Slightly Disagree

(4) Slightly Agree

(5) Agree

(6) Strongly Agree

43. My job goals and objectives are clear

(Clear job goals and objectives)

Question type: core Answer type: single

(1) Strongly Disagree

(2) Disagree

(3) Slightly Disagree

(4) Slightly Agree

(5) Agree

(6) Strongly Agree

44. The level of challenge of the goals in my job motivates me

(Challenging goals)

Question type: core Answer type: single

(1) Strongly Disagree

(2) Disagree

(3) Slightly Disagree

(4) Slightly Agree

(5) Agree

(6) Strongly Agree

Select one of the six categories from Strongly Disagree to Strongly Agree for each statement as it applies to you. Please note: In any question that refers to your 'boss', please answer in relation to your supervisor.

45. I am troubled that I work longer hours than I choose or want to

(Long hours)

Question type: core Answer type: single

(1) Strongly Disagree

(2) Disagree

(3) Slightly Disagree

(4) Slightly Agree

(5) Agree

(6) Strongly Agree

46. I am troubled that I work unsociable hours e.g. weekends, shift work etc

(Unsocial hours)

Question type: core Answer type: single

(1) Strongly Disagree

(2) Disagree

(3) Slightly Disagree

(4) Slightly Agree

(5) Agree

(6) Strongly Agree

47. I am troubled that I spend too much time travelling in my job

(Excessive travel time)

Question type: core Answer type: single

(1) Strongly Disagree

(2) Disagree

(3) Slightly Disagree

(4) Slightly Agree

(5) Agree

(6) Strongly Agree

48. I am troubled that I have little control over many aspects of my job

(Lack of control over aspects of the job)

Question type: core Answer type: single

(1) Strongly Disagree

(2) Disagree

(3) Slightly Disagree

(4) Slightly Agree

(5) Agree

(6) Strongly Agree

49. I am troubled that my physical working conditions are unpleasant (e.g. noisy, dirty, poorly designed).

(Poor physical working conditions)

Question type: core Answer type: single

(1) Strongly Disagree

(2) Disagree

(3) Slightly Disagree

(4) Slightly Agree

(5) Agree

(6) Strongly Agree

50. I am troubled that my work interferes with my home and personal life.

(Work interfering with home/personal life)

Question type: core Answer type: single

(1) Strongly Disagree

(2) Disagree

(3) Slightly Disagree

(4) Slightly Agree

(5) Agree

(6) Strongly Agree

51. I am troubled that I may be doing the same job for the next 5 to 10 years.

(Job is unlikely to change in the next 5-10 years)

Question type: core Answer type: single

(1) Strongly Disagree

(2) Disagree

(3) Slightly Disagree

(4) Slightly Agree

(5) Agree

(6) Strongly Agree

52. I am troubled that my job involves the risk of actual physical violence.

(Risk of physical violence)

Question type: core Answer type: single

(1) Strongly Disagree

(2) Disagree

(3) Slightly Disagree

(4) Slightly Agree

(5) Agree

(6) Strongly Agree

53. I am troubled that my boss behaves in an intimidating and bullying way towards me.

(Aggressive management style)

Question type: core Answer type: single

(1) Strongly Disagree

(2) Disagree

(3) Slightly Disagree

(4) Slightly Agree

(5) Agree

(6) Strongly Agree

54. I am troubled that my performance at work is closely monitored.

(Work performance closely monitored)

Question type: core Answer type: single

(1) Strongly Disagree

(2) Disagree

(3) Slightly Disagree

(4) Slightly Agree

(5) Agree

(6) Strongly Agree

55. I am troubled that I do not receive the support from others (boss/colleagues) that I would like.

(Support from others)

Question type: core Answer type: single

(1) Strongly Disagree

(2) Disagree

(3) Slightly Disagree

(4) Slightly Agree

(5) Agree

(6) Strongly Agree

56. I am troubled that my job is insecure.

(Job insecurity)

Question type: core Answer type: single

(1) Strongly Disagree

(2) Disagree

(3) Slightly Disagree

(4) Slightly Agree

(5) Agree

(6) Strongly Agree

57. I am troubled that my job is not permanent.

(Lack of job permanence)

Question type: core Answer type: single

(1) Strongly Disagree

(2) Disagree

(3) Slightly Disagree

(4) Slightly Agree

(5) Agree

(6) Strongly Agree

58. I am troubled that my pay & benefits are not as good as other people doing the same or similar work.

(Comparatively poor pay & benefits)

Question type: core Answer type: single

(1) Strongly Disagree

(2) Disagree

(3) Slightly Disagree

(4) Slightly Agree

(5) Agree

(6) Strongly Agree

59. I am troubled that the technology in my job has overloaded me.

(Technology overload)

Question type: core Answer type: single

(1) Strongly Disagree

(2) Disagree

(3) Slightly Disagree

(4) Slightly Agree

(5) Agree

(6) Strongly Agree

60. I am troubled that my organisation is constantly changing for change's sake.

(Organisation changes for change's sake)

Question type: core Answer type: single

(1) Strongly Disagree

(2) Disagree

(3) Slightly Disagree

(4) Slightly Agree

(5) Agree

(6) Strongly Agree

61. I am troubled that my work is dull and repetitive.

(Dull & repetitive work)

Question type: core Answer type: single

(1) Strongly Disagree

(2) Disagree

(3) Slightly Disagree

(4) Slightly Agree

(5) Agree

(6) Strongly Agree

62. I am troubled that I feel isolated at work e.g. working on my own or lack of social support from others.

(Isolation at work)

Question type: core Answer type: single

(1) Strongly Disagree

(2) Disagree

(3) Slightly Disagree

(4) Slightly Agree

(5) Agree

(6) Strongly Agree

63. I am troubled that I am not sure what is expected of me by my boss.

(Unclear what boss expects)

Question type: core Answer type: single

(1) Strongly Disagree

(2) Disagree

(3) Slightly Disagree

(4) Slightly Agree

(5) Agree

(6) Strongly Agree

64. I am troubled that other people at work are not pulling their weight.

(Others not pulling their weight)

Question type: core Answer type: single

(1) Strongly Disagree

(2) Disagree

(3) Slightly Disagree

(4) Slightly Agree

(5) Agree

(6) Strongly Agree

65. I am troubled that I am set unrealistic deadlines.

(Unrealistic deadlines)

Question type: core Answer type: single

(1) Strongly Disagree

(2) Disagree

(3) Slightly Disagree

(4) Slightly Agree

(5) Agree

(6) Strongly Agree

66. I am troubled that I am given unmanageable workloads.

(Unmanageable workloads)

Question type: core Answer type: single

(1) Strongly Disagree

(2) Disagree

(3) Slightly Disagree

(4) Slightly Agree

(5) Agree

(6) Strongly Agree

67. I am troubled that my boss is forever finding fault with what I do.

(Boss is forever finding fault)

Question type: core Answer type: single

(1) Strongly Disagree

(2) Disagree

(3) Slightly Disagree

(4) Slightly Agree

(5) Agree

(6) Strongly Agree

68. I am troubled that others take the credit for what I have achieved.

(Others take credit for my achievements)

Question type: core Answer type: single

(1) Strongly Disagree

(2) Disagree

(3) Slightly Disagree

(4) Slightly Agree

(5) Agree

(6) Strongly Agree

69. I am troubled that I have to deal with difficult customers/clients.

(Dealing with difficult customers/clients)

Question type: core Answer type: single

(1) Strongly Disagree

(2) Disagree

(3) Slightly Disagree

(4) Slightly Agree

(5) Agree

(6) Strongly Agree

70. I am troubled that my relationships with colleagues are poor.

(Poor relationships with colleagues)

Question type: core Answer type: single

(1) Strongly Disagree

(2) Disagree

(3) Slightly Disagree

(4) Slightly Agree

(5) Agree

(6) Strongly Agree

71. I am troubled that I do not feel I am informed about what is going on in this organization.

(Lack of information about what is going on in the organisation)

Question type: core Answer type: single

(1) Strongly Disagree

(2) Disagree

(3) Slightly Disagree

(4) Slightly Agree

(5) Agree

(6) Strongly Agree

72. I am troubled that I am never told if I am doing a good job.

(Lack of feedback on performance)

Question type: core Answer type: single

(1) Strongly Disagree

(2) Disagree

(3) Slightly Disagree

(4) Slightly Agree

(5) Agree

(6) Strongly Agree

73. I am troubled that I am not involved in decisions affecting my job.

(Lack of involvement in decision making)

Question type: core Answer type: single

(1) Strongly Disagree

(2) Disagree

(3) Slightly Disagree

(4) Slightly Agree

(5) Agree

(6) Strongly Agree

74. I am troubled that I am not adequately trained to do many aspects of my job.

(Lack of adequate training to do the job)

Question type: core Answer type: single

(1) Strongly Disagree

(2) Disagree

(3) Slightly Disagree

(4) Slightly Agree

(5) Agree

(6) Strongly Agree

75. I am troubled that I do not have the proper equipment or resources to do my job.

(Lack of equipment/resources to do the job)

Question type: core Answer type: single

(1) Strongly Disagree

(2) Disagree

(3) Slightly Disagree

(4) Slightly Agree

(5) Agree

(6) Strongly Agree

76. I am troubled that I do not have enough time to do my job as well as I would like.

(Lack of time)

Question type: core Answer type: single

(1) Strongly Disagree

(2) Disagree

(3) Slightly Disagree

(4) Slightly Agree

(5) Agree

(6) Strongly Agree

77. I am troubled that my job is likely to change in the future.

(Future job change)

Question type: core Answer type: single

(1) Strongly Disagree

(2) Disagree

(3) Slightly Disagree

(4) Slightly Agree

(5) Agree

(6) Strongly Agree

78. I am troubled that my job skills may become redundant in the near future.

(Fear of skill redundancy)

Question type: core Answer type: single

(1) Strongly Disagree

(2) Disagree

(3) Slightly Disagree

(4) Slightly Agree

(5) Agree

(6) Strongly Agree

79. I am troubled that my ideas or suggestions about my job are not taken into account.

(Account not taken of staff ideas/suggestions about the job)

Question type: core Answer type: single

(1) Strongly Disagree

(2) Disagree

(3) Slightly Disagree

(4) Slightly Agree

(5) Agree

(6) Strongly Agree

80. I am troubled that I have little or no influence over my performance targets.

(Lack of influence over performance targets)

Question type: core Answer type: single

(1) Strongly Disagree

(2) Disagree

(3) Slightly Disagree

(4) Slightly Agree

(5) Agree

(6) Strongly Agree

81. I am troubled that I do not enjoy my job.

(Lack of enjoyment of job)

Question type: core Answer type: single

(1) Strongly Disagree

(2) Disagree

(3) Slightly Disagree

(4) Slightly Agree

(5) Agree

(6) Strongly Agree

Engagement and Related Scales

Please note: 'organisation' refers to the University of Xxxxx.

82. Working in this organisation is motivating.

(Organisation is motivating)

Question type: core Answer type: single

(1) Strongly Disagree

(2) Disagree

(3) Slightly Disagree

(4) Slightly Agree

(5) Agree

(6) Strongly Agree

83. I feel that it is worthwhile to work hard for this organisation.

(Work hard for this organisation)

Question type: core Answer type: single

(1) Strongly Disagree

(2) Disagree

(3) Slightly Disagree

(4) Slightly Agree

(5) Agree

(6) Strongly Agree

84. If necessary I am prepared to put myself out for this organization, e.g. working long hours and/or unsociable hours.

(Put myself out for organisation)

Question type: core Answer type: single

(1) Strongly Disagree

(2) Disagree

(3) Slightly Disagree

(4) Slightly Agree

(5) Agree

(6) Strongly Agree

85. I am committed to this organisation.

(Committed to organisation)

Question type: core Answer type: single

(1) Strongly Disagree

(2) Disagree

(3) Slightly Disagree

(4) Slightly Agree

(5) Agree

(6) Strongly Agree

86. I feel that it is worthwhile to work hard for this organisation.

(Work hard for this organisation (Commitment))

Question type: core_hidden Answer type: single

(1) Strongly Disagree

(2) Disagree

(3) Slightly Disagree

(4) Slightly Agree

(5) Agree

(6) Strongly Agree

87. I am committed to achieving the goals of my job.

(Achieving the goals of job)

Question type: core_hidden Answer type: single

(1) Strongly Disagree

(2) Disagree

(3) Slightly Disagree

(4) Slightly Agree

(5) Agree

(6) Strongly Agree

88. I am committed to this organisation.

(Committed to organisation (Commitment))

Question type: core_hidden Answer type: single

(1) Strongly Disagree

(2) Disagree

(3) Slightly Disagree

(4) Slightly Agree

(5) Agree

(6) Strongly Agree

89. I feel valued and trusted by the organisation.

(Feel valued and trusted)

Question type: core Answer type: single

(1) Strongly Disagree

(2) Disagree

(3) Slightly Disagree

(4) Slightly Agree

(5) Agree

(6) Strongly Agree

90. Overall, I am happy with my organisation.

(Happy with organisation)

Question type: core Answer type: single

(1) Strongly Disagree

(2) Disagree

(3) Slightly Disagree

(4) Slightly Agree

(5) Agree

(6) Strongly Agree

Your Health

Over the last 3 months, have you experienced any of the following symptoms or changes in behaviour?

91. Lack of appetite or over eating

(Lack of appetite or over eating)

Question type: core Answer type: single

(1) Never

(2) Rarely

(3) Sometimes

(4) Often

92. Indigestion or heartburn

(Indigestion or heartburn)

Question type: core Answer type: single

(1) Never

(2) Rarely

(3) Sometimes

(4) Often

93. Insomnia – sleep loss

(Insomnia – sleep loss)

Question type: core Answer type: single

(1) Never

(2) Rarely

(3) Sometimes

(4) Often

94. Headaches

(Headaches)

Question type: core Answer type: single

(1) Never

(2) Rarely

(3) Sometimes

(4) Often

95. Panic or anxiety attacks

(Panic or anxiety attacks)

Question type: core Answer type: single

(1) Never

(2) Rarely

(3) Sometimes

(4) Often

96. Muscular tension / aches and pains

(Muscular tension / aches and pains)

Question type: core Answer type: single

(1) Never

(2) Rarely

(3) Sometimes

(4) Often

97. Feeling nauseous or being sick

(Feeling nauseous or being sick)

Question type: core Answer type: single

(1) Never

(2) Rarely

(3) Sometimes

(4) Often

98. Constant irritability

(Constant irritability)

Question type: core Answer type: single

(1) Never

(2) Rarely

(3) Sometimes

(4) Often

99. Difficulty in making decisions

(Difficulty in making decisions)

Question type: core Answer type: single

(1) Never

(2) Rarely

(3) Sometimes

(4) Often

100. Loss of sense of humour

(Loss of sense of humour)

Question type: core Answer type: single

(1) Never

(2) Rarely

(3) Sometimes

(4) Often

101. Feeling or becoming angry with others too easily

(Feeling or becoming angry with others too easily)

Question type: core Answer type: single

(1) Never

(2) Rarely

(3) Sometimes

(4) Often

102. Constant tiredness

(Constant tiredness)

Question type: core Answer type: single

(1) Never

(2) Rarely

(3) Sometimes

(4) Often

103. Feeling unable to cope

(Feeling unable to cope)

Question type: core Answer type: single

(1) Never

(2) Rarely

(3) Sometimes

(4) Often

104. Avoiding contact with other people

(Avoiding contact with other people)

Question type: core Answer type: single

(1) Never

(2) Rarely

(3) Sometimes

(4) Often

105. Mood swings

(Mood swings)

Question type: core Answer type: single

(1) Never

(2) Rarely

(3) Sometimes

(4) Often

106. Unable to listen to other people

(Unable to listen to other people)

Question type: core Answer type: single

(1) Never

(2) Rarely

(3) Sometimes

(4) Often

107. Having difficulty concentrating

(Having difficulty concentrating)

Question type: core Answer type: single

(1) Never

(2) Rarely

(3) Sometimes

(4) Often

108. Have you had any significant illnesses in the last 6 months?

(Any significant illnesses in the last 6 months)

Question type: supplementary Answer type: single

(1) Yes

(2) No

109. Over the last 3 months, roughly how productive have you felt in your job?

(Productivity)

Question type: supplementary Answer type: single

(1) 100% productive

(2) 90-99% productive

(3) 80-89% productive

(4) 70-79% productive

(5) 60-69% productive

(6) 50-59% productive

(7) 40-49% productive

(8) 30-39% productive

(9) 20-29% productive

(10) 10-19% productive

(11) 0-9% productive

110. Over the last 3 months, how would you rate your overall health?

(Rating of overall health over last 3 months)

Question type: supplementary Answer type: single

(1) Good

(2) Alright

(3) Poor

111. Over the last 6 months, have you encountered any major stressful events that have had an important effect on you?

(Encountered any major stressful events that have had an important effect over last 6 months)

Question type: supplementary Answer type: single

(1) Yes

(2) No

112. Were the stressful events:

(Nature of stressful events)

Question type: leap Answer type: single

This is a leap question triggered by 'Encountered any major stressful events that have had an important effect over last 6 months: Yes'

(1) Work related

(2) Non-work related

(3) Both

113. Over the last 3 months, how many working days have you been off work through illness or injury?

(Number of working days off work through illness or injury over last 3 months)

Question type: supplementary Answer type: single

(1) 0

(2) 1

(3) 2-5

(4) 6 or more

114. How many times have you been to your doctor over the last 3 months?

(Number of visits to doctor over the last 3 months)

Question type: supplementary Answer type: single

(1) 0

(2) 1

(3) 2-5

(4) 6 or more

Pulse

Please consider each question as it applies to you. To what extent do you agree with the items below, where 0% = completely disagree through to 100% = completely agree.

115. Right now at work I feel confident that I can deal with difficulties when they arise.

()

Question type: supplementary Answer type: slider

116. Nowadays if something goes wrong in my job I feel that I will get the support that I need.

()

Question type: supplementary Answer type: slider

117. The fact that my current job goals are worthwhile helps me to keep going when problems arise.

()

Question type: supplementary Answer type: slider

118. At the moment, I adapt my approach to deal with work challenges as they come up.

()

Question type: supplementary Answer type: slider

Workplace bullying and harassment

Bullying may be characterised as "repeated inappropriate behaviour, direct or indirect, whether verbal, physical or otherwise, conducted by one or more persons against another or others, at the place of work and/or in the course of employment, which could reasonably be regarded as undermining the individual's right to dignity at work. An isolated incident of the behaviour described in this definition may be an affront to dignity at work but, as a once-off incident, is not considered bullying."

119. Have you ever been bullied or harassed at work whilst employed by the University?

(Bullied at work)

Question type: supplementary Answer type: single

(0) Yes

(1) No

120. Was it within the last 6 months?

(Bullied within last 6 months)

Question type: leap Answer type: single

This is a leap question triggered by 'Bullied at work: Yes'

(0) Yes

(1) No

121. Was the source of bullying: (select all that apply)

(Source of bullying)

Question type: leap Answer type: multiple

This is a leap question triggered by 'Bullied at work: Yes'

(1) A manager/supervisor

(2) A colleague/same level peer

(3) A subordinate

(4) A student

(5) Other

122. How was the bullying or harassment dealt with?

(Bullying dealt with)

Question type: leap Answer type: single

This is a leap question triggered by 'Bullied at work: Yes'

(0) Resolved

(1) Not resolved

(2) Outstanding

123. How helpful was the bullying and harassment policy to you when dealing with the issue?

(Policy helpful)

Question type: leap Answer type: single

This is a leap question triggered by 'Bullied at work: Yes'

(0) Not helpful at all

(1) A little helpful

(2) Quite helpful

(3) Very helpful

(4) Extremely helpful

124. If the policy was not helpful, how could it be improved?

(Improve bullying policy)

Question type: leap Answer type: free

This is a leap question triggered by 'Bullied at work: Yes'

125. Did you report the bullying through the official channels?

(Official channels)

Question type: leap Answer type: single

This is a leap question triggered by 'Bullied at work: Yes'

(0) Yes

(1) No

126. If not, why did you not report it?

(Bullying not reported)

Question type: leap Answer type: single

This is a leap question triggered by 'Official channels: No'

(0) Unaware of how to

(1) Didn't feel it was serious enough

(2) Manager would disapprove

(3) Peers and colleagues would disapprove

(4) Did not feel the problem would be resolved

(5) Other

127. In the past 3 months, have you ever had significant family and/or personal problems but attended work regardless?

(Family personal problems)

Question type: supplementary Answer type: single

(0) Yes

(1) No

128. In the past 3 months, have you ever not felt well enough to perform your duties to your normal standard but attended work regardless?

(Presenteeism)

Question type: demographic Answer type: single

(0) Yes

(1) No

129. I felt pressurised by my manager to work regardless of my illness.

(Pressurised by manager to come in ill)

Question type: leap Answer type: single

This is a leap question triggered by 'Presenteeism: Yes'

(1) Strongly Disagree

(2) Disagree

(3) Slightly Disagree

(4) Slightly Agree

(5) Agree

(6) Strongly Agree

130. I felt pressurised by my colleagues to work regardless of my illness.

(Pressurised by colleagues to come in ill)

Question type: leap Answer type: single

This is a leap question triggered by 'Presenteeism: Yes'

(1) Strongly Disagree

(2) Disagree

(3) Slightly Disagree

(4) Slightly Agree

(5) Agree

(6) Strongly Agree

131. I put myself under pressure to work regardless of my illness.

(Pressurised myself to come in ill)

Question type: leap Answer type: single

This is a leap question triggered by 'Presenteeism: Yes'

(1) Strongly Disagree

(2) Disagree

(3) Slightly Disagree

(4) Slightly Agree

(5) Agree

(6) Strongly Agree

Performance

The next six questions relate to your perceptions of your own performance at work.

To what extent do you agree with the following statements:

132. I achieve the objectives of my job.

(Achieve objectives)

Question type: supplementary Answer type: single

(0) Strongly Disagree

(1) Disagree

(2) Neither agree nor disagree

(3) Agree

(4) Strongly Agree

133. I demonstrate expertise in all aspects of my job.

(Demonstrate expertise)

Question type: supplementary Answer type: single

(0) Strongly Disagree

(1) Disagree

(2) Neither agree nor disagree

(3) Agree

(4) Strongly Agree

134. I fulfil all the requirements of my job.

(Fulfil requirements)

Question type: supplementary Answer type: single

(0) Strongly Disagree

(1) Disagree

(2) Neither agree nor disagree

(3) Agree

(4) Strongly Agree

135. I am competent in all areas of my job.

(Competent)

Question type: supplementary Answer type: single

(0) Strongly Disagree

(1) Disagree

(2) Neither agree nor disagree

(3) Agree

(4) Strongly Agree

136. I perform well in my job overall.

(Perform well)

Question type: supplementary Answer type: single

(0) Strongly Disagree

(1) Disagree

(2) Neither agree nor disagree

(3) Agree

(4) Strongly Agree

137. I accomplish all that is required in my post.

(Accomplish all)

Question type: supplementary Answer type: single

(0) Strongly Disagree

(1) Disagree

(2) Neither agree nor disagree

(3) Agree

(4) Strongly Agree

Perceived Social Support

We are interested in how you feel about the following statements. Read each statement carefully. Indicate how you feel about each statement.

138. There is a special person who is around when I am in need.

(Special person)

Question type: supplementary Answer type: single

(0) Very Strongly Disagree

(1) Strongly Disagree

(2) Mildly Disagree

(3) Neutral

(4) Mildly Agree

(5) Strongly Agree

(6) Very Strongly Agree

139. There is a special person with whom I can share my joys and sorrows.

(Special person sorrows)

Question type: supplementary Answer type: single

(0) Very Strongly Disagree

(1) Strongly Disagree

(2) Mildly Disagree

(3) Neutral

(4) Mildly Agree

(5) Strongly Agree

(6) Very Strongly Agree

140. My family really tries to help me.

(Family help)

Question type: supplementary Answer type: single

(0) Very Strongly Disagree

(1) Strongly Disagree

(2) Mildly Disagree

(3) Neutral

(4) Mildly Agree

(5) Strongly Agree

(6) Very Strongly Agree

141. I get the emotional help and support I need from my family.

(Emotional support family)

Question type: supplementary Answer type: single

(0) Very Strongly Disagree

(1) Strongly Disagree

(2) Mildly Disagree

(3) Neutral

(4) Mildly Agree

(5) Strongly Agree

(6) Very Strongly Agree

142. I have a special person who is a real source of comfort to me.

(Special person comfort)

Question type: supplementary Answer type: single

(0) Very Strongly Disagree

(1) Strongly Disagree

(2) Mildly Disagree

(3) Neutral

(4) Mildly Agree

(5) Strongly Agree

(6) Very Strongly Agree

143. My friends really try to help me.

(Friends help)

Question type: supplementary Answer type: single

(0) Very Strongly Disagree

(1) Strongly Disagree

(2) Mildly Disagree

(3) Neutral

(4) Mildly Agree

(5) Strongly Agree

(6) Very Strongly Agree

144. I can count on my friends when things go wrong.

(Friends)

Question type: supplementary Answer type: single

(0) Very Strongly Disagree

(1) Strongly Disagree

(2) Mildly Disagree

(3) Neutral

(4) Mildly Agree

(5) Strongly Agree

(6) Very Strongly Agree

145. I can talk about my problems with my family.

(Problems with family)

Question type: supplementary Answer type: single

(0) Very Strongly Disagree

(1) Strongly Disagree

(2) Mildly Disagree

(3) Neutral

(4) Mildly Agree

(5) Strongly Agree

(6) Very Strongly Agree

146. I have friends with whom I can share my joys and sorrows.

(Friends joys and sorrows)

Question type: supplementary Answer type: single

(0) Very Strongly Disagree

(1) Strongly Disagree

(2) Mildly Disagree

(3) Neutral

(4) Mildly Agree

(5) Strongly Agree

(6) Very Strongly Agree

147. There is a special person in my life who cares about my feelings.

(Special person cares)

Question type: supplementary Answer type: single

(0) Very Strongly Disagree

(1) Strongly Disagree

(2) Mildly Disagree

(3) Neutral

(4) Mildly Agree

(5) Strongly Agree

(6) Very Strongly Agree

148. My family is willing to help me make decisions.

(Family decisions)

Question type: supplementary Answer type: single

(0) Very Strongly Disagree

(1) Strongly Disagree

(2) Mildly Disagree

(3) Neutral

(4) Mildly Agree

(5) Strongly Agree

(6) Very Strongly Agree

149. I can talk about my problems with my friends.

(Talk about problems)

Question type: supplementary Answer type: single

(0) Very Strongly Disagree

(1) Strongly Disagree

(2) Mildly Disagree

(3) Neutral

(4) Mildly Agree

(5) Strongly Agree

(6) Very Strongly Agree

Current Interventions

Each of the questions below asks whether you have accessed a number of interventions. If you have used these, please select "Yes" and you will be presented with a further question asking you to indicate how useful you found the service.

Have you accessed any of the following interventions:

150. Employee Support Service

(Employee Support Service)

Question type: supplementary Answer type: single

(0) Yes

(1) No

151. How effective did you find the Employee Support Service?

(Effective support service)

Question type: leap Answer type: single

This is a leap question triggered by 'Employee Support Service: Yes'

(0) Very effective

(1) Effective

(2) Somewhat effective

(3) Somewhat ineffective

(4) Ineffective

(5) Very ineffective

152. Footcare

(Footcare)

Question type: supplementary Answer type: single

(0) Yes

(1) No

153. How effective did you find the Footcare?

(Effective footcare)

Question type: leap Answer type: single

This is a leap question triggered by 'Footcare: Yes'

(0) Very effective

(1) Effective

(2) Somewhat effective

(3) Somewhat ineffective

(4) Ineffective

(5) Very ineffective

154. Mini Health Checks

(Mini Health Checks)

Question type: supplementary Answer type: single

(0) Yes

(1) No

155. How effective did you find the Mini Health Checks?

(Effective mini health checks)

Question type: leap Answer type: single

This is a leap question triggered by 'Mini Health Checks: Yes'

(0) Very effective

(1) Effective

(2) Somewhat effective

(3) Somewhat ineffective

(4) Ineffective

(5) Very ineffective

156. Chair Massage

(Chair Massage)

Question type: supplementary Answer type: single

(0) Yes

(1) No

157. How effective did you find the Chair Massage?

(Effective chair massage)

Question type: leap Answer type: single

This is a leap question triggered by 'Chair Massage: Yes'

(0) Very effective

(1) Effective

(2) Somewhat effective

(3) Somewhat ineffective

(4) Ineffective

(5) Very ineffective

158. Musculoskeletal Screening

(Musculoskeletal Screening)

Question type: supplementary Answer type: single

(0) Yes

(1) No

159. How effective did you find the Musculoskeletal Screening?

(Effective screening)

Question type: leap Answer type: single

This is a leap question triggered by 'Musculoskeletal Screening: Yes'

(0) Very effective

(1) Effective

(2) Somewhat effective

(3) Somewhat ineffective

(4) Ineffective

(5) Very ineffective

160. Stress Management Workshop

(Stress Management Workshop)

Question type: supplementary Answer type: single

(0) Yes

(1) No

161. How effective did you find the Stress Management Workshop?

(Effective stress management workshop)

Question type: leap Answer type: single

This is a leap question triggered by 'Stress Management Workshop: Yes'

(0) Very effective

(1) Effective

(2) Somewhat effective

(3) Somewhat ineffective

(4) Ineffective

(5) Very ineffective

162. Couch to 5k

(Couch to 5k)

Question type: supplementary Answer type: single

(0) Yes

(1) No

163. How effective did you find the Couch to 5k?

(Effective Couch to 5k)

Question type: leap Answer type: single

This is a leap question triggered by 'Couch to 5k: Yes'

(0) Very effective

(1) Effective

(2) Somewhat effective

(3) Somewhat ineffective

(4) Ineffective

(5) Very ineffective

Additional Information

164. How frequently do you hear the President's Briefing from your manager?

(Presidents Briefing)

Question type: supplementary Answer type: single

(0) Never

(1) Infrequently

(2) Once a month

165. Is there anything else you would like to add that has not come up already on the questionnaire? Please state below. To protect anonymity, please do not state anything that can be used to identify you or others.

(Additional Comments)

Question type: supplementary Answer type: free

Appendix B: Initiative Oversight and Data Use Agreement With Employer

Initiative Oversight and Data Use Agreement with Employer

May 12, 2014

Our employee/practicum student Mr. Tommy Foy is leading an employee survey on workplace stress using an organizational stress-screening tool (ASSET) initiative. The survey will be conducted under our organization's supervision within the scope of our standard operations. We understand that Mr. Foy seeks to write about this initiative as part of a doctoral project for Walden University.

The Walden University Institutional Review Board (IRB) will be responsible for ensuring that the student's published project meets the university's ethical standards regarding confidentiality (outlined below). All other aspects of the implementation and evaluation of the initiative are the responsibility of the student, within his role as our employee.

The doctoral student will be given access to a Limited Data Set ("LDS") for use in the doctoral project in accordance with the ethical standards outlined below.

1. *Definitions. Unless otherwise specified in this Agreement, all capitalized terms used in this Agreement not otherwise defined have the meaning established for purposes of the "HIPAA Regulations" codified at Title 45 parts 160 through 164 of the United States Code of Federal Regulations, as amended from time to time.*

2. *Preparation of the LDS. Data Provider shall prepare and furnish to Data Recipient an LDS in accord with any applicable HIPAA or FERPA Regulations.*

3. *Data Fields in the LDS. No direct identifiers such as names may be included in the Limited Data Set (LDS). In preparing the LDS, Data Provider shall include the data fields specified as follows, which are the minimum necessary to accomplish the research: data from an organizational stress-screening tool (ASSET) survey.*

4. *Responsibilities of Data Recipient. Data Recipient agrees to:*

    a. *Use or disclose the LDS only as permitted by this Agreement or as required by law;*

    b. *Use appropriate safeguards to prevent use or disclosure of the LDS other than as permitted by this Agreement or required by law;*

    c. *Report to Data Provider any use or disclosure of the LDS of which it becomes aware that is not permitted by this Agreement or required by law;*

d. Require any of its subcontractors or agents that receive or have access to the LDS to agree to the same restrictions and conditions on the use and/or disclosure of the LDS that apply to Data Recipient under this Agreement; and

e. Not use the information in the LDS to identify or contact the individuals who are data subjects.

5. Permitted Uses and Disclosures of the LDS. Data Recipient may use and/or disclose the LDS for its research activities only.

6. Term and Termination.

a. Term. The term of this Agreement shall commence as of the Effective Date and shall continue for so long as Data Recipient retains the LDS, unless sooner terminated as set forth in this Agreement.

b. Termination by Data Recipient. Data Recipient may terminate this agreement at any time by notifying the Data Provider and returning or destroying the LDS.

c. Termination by Data Provider. Data Provider may terminate this agreement at any time by providing thirty (30) days' prior written notice to Data Recipient.

d. For Breach. Data Provider shall provide written notice to Data Recipient within ten (10) days of any determination that Data Recipient has breached a material term of this Agreement. Data Provider shall afford Data Recipient an opportunity to cure said alleged material breach upon mutually agreeable terms. Failure to agree on mutually agreeable terms for cure within thirty (30) days shall be grounds for the immediate termination of this Agreement by Data Provider.

e. Effect of Termination. Sections 1, 4, 5, 6(e) and 7 of this Agreement shall survive any termination of this Agreement under subsections c or d.

7. Miscellaneous.

a. Change in Law. The parties agree to negotiate in good faith to amend this Agreement to comport with changes in federal law that materially alter either or both parties' obligations under this Agreement. Provided, however, that if the parties are unable to agree to mutually acceptable amendment(s) by the compliance date of the change in applicable law or regulations, either Party may terminate this Agreement as provided in section 6.

b. Construction of Terms. The terms of this Agreement shall be construed to give effect to applicable federal interpretative guidance regarding the HIPAA Regulations.

c. No Third Party Beneficiaries. Nothing in this Agreement shall confer upon any person other than the parties and their respective successors or assigns any rights, remedies, obligations, or liabilities whatsoever.

d. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

e. Headings. The headings and other captions in this Agreement are for convenience and reference only and shall not be used in interpreting, construing or enforcing any of the provisions of this Agreement.

IN WITNESS WHEREOF, each of the undersigned has caused this Agreement to be duly executed in its name and on its behalf.

Partner Site (Student's Employer)	**Doctoral Student**
Signed:	Signed:
_____	_____
Print Name:	Print Name:
Print Title: Corporate Secretary Irish HEI	Print Title: Irish HEI

Appendix C: ASSET Cover Statement

Well-Being at Work Questionnaire

Dear Colleagues,

At the University of Xxxxxx, we are committed to maintaining and improving the well-being of all staff at work. In order to achieve this and maintain a positive and thriving working environment, it is important that factors affecting peoples' well-being are clearly identified and managed effectively.

You are invited to take part in a university-wide survey about your well-being at work. Your responses, which will be **completely confidential**, will form part of an organisation-wide report, the purpose of which will be to identify how we can better support you. The survey is being administered and analysed by Robertson Cooper, an independent company that specialises in assessing workplace well-being. The company has undertaken surveys for many public and private sector organisations, including other universities. As chartered occupational psychologists, Robertson Cooper is bound by a professional code of ethics (British Psychological Society) not to breach confidentiality assurances given.

At the end of the survey, you will have the option to download a personalised Resilience Snapshot report that sets out how you see your own resilience level and workplace pressures. The report is completely confidential and will not be shared with anyone else. It can either be saved as a pdf or printed.

The survey will ask you what you think about the pressures you experience at work and how they affect you. You will also be asked about your experiences outside work, such as family or day-to-day experiences. We are asking you and your colleagues to do this to be sure that we are doing all we can to make UL a good place to work. Your feedback will also help to improve the support that those working in UL receive to manage pressure in and outside of work. Your feedback will also be used for research purposes in this area.

Your responses to this questionnaire will be collected and held anonymously. Responses **cannot and will not** be traced back to you. You will be asked to indicate your department/division, and only group data will be presented. Responses cannot and will not be used as an evaluation of your work or capabilities.

The submission of your responses is taken as your informed consent.

Please take the time to complete the questionnaire (approx. 15-20 minutes). The results will provide an indication of how well the University of Xxxxxx is performing and will give an indication of any problem areas. Well-being and stress are very subjective and can affect people in different ways. Because of this, we would encourage you not to rely on others to raise issues.

What Happens Afterwards?

You will be informed about the results of the survey and the actions the University is committed to taking based on the results and recommendations from the analysis.

Thank you for your participation!

Important Instructions

Please review the following statements before proceeding.

- You DO NOT have to log in with personal credentials or put your name on the survey. When you click on the link, you will be presented with an anonymous and randomly assigned username and password to enter the survey. Please be sure to make a note of your unique username and password. You will need this if you need to log out prior to submitting. Once you have done this and submitted your responses to the questionnaire, these will be stored anonymously in Robertson Cooper's secure database.
- Please note that the system will log out automatically after 45 minutes if left idle.
- Robertson Cooper cannot use the information collected to identify individuals. Robertson Cooper will only give the results of the survey to the University of Xxxxxx at the group level, at a minimum group size of 8 survey respondents. If you fall into a group with less than 8 respondents, your responses will only be clustered with other groups for reporting purposes. The submission of your responses is taken as your informed consent for your responses to be used in this way.
- If you have any technical problems, please contact support@robertsoncooper.com.

Please take the time to complete the questionnaire. It will provide an indication of how well the University is doing in this important area and it will give an indication of where any problems might be to allow us to provide the right support. Don't rely on others to

raise issues; well-being and stress are quite subjective and can affect people in different ways.

Frequently Asked Questions (FAQs)

What is work-related stress?

Work-related stress is the adverse reaction people have to pressures or demands placed on them at work. There is a clear distinction between pressure, which can be a motivating factor, and stress, which can occur when this pressure becomes excessive.

Why is work-related stress an issue?

There is no doubt that work-related stress is a serious problem. The effects of stress can be categorised as follows:

- Mental (how the mind works);
- Physical (how the body works);
- Behavioural (the things we do);
- Cognitive (the way we think and concentrate).

(Source: Health and Safety Authority)

Who can complete the survey?

We are interested in hearing from everyone who works in the University of Xxxxxx.

When do I complete the survey?

The survey is open from 9 to 28 February 2015.

Is the survey confidential?

Yes. Robertson Cooper is an independent company that specialises in assessing workplace well-being; they have undertaken surveys for many public and private sector

organisations in the UK and internationally. As chartered occupational psychologists, the company's consultants are bound by a professional code of ethics (British Psychological Society) not to breach confidentiality assurances that have been given to them. Robertson Cooper will not share any individual personal information gathered with the University of Xxxxxx. All responses will be collected and kept anonymously and results presented back to the University on a group level only.

Some of the questions are of a personal nature. Why should I fill them in?

Some personal questions have to be asked about your health, family, etc., but your anonymous responses cannot be traced back to you personally. You don't have to answer any question that you feel uncomfortable with. However, by completing all of the questions, we will get a very good view of the health, well-being and satisfaction of all staff, which will inform the support services available to all staff of the University. Missing out questions is likely to affect the quality of the overall collected data.

Who do I contact if I have any IT issues?

You can contact Robertson Cooper to assist with technical problems on support@robertsoncooper.com.

Information on Privacy and Data Protection

How do I know this is anonymous?

You DO NOT have to log in with your personal credentials or put your name on the survey. When you click on the link, you will be presented with an anonymous and randomly assigned username and password.

What will happen to my answers if I participate?

Once you have completed the survey, your answers will be stored electronically to enable Robertson Cooper to formulate statistical reports in the future. After the survey period, all reports will be in an aggregate form, thereby ensuring that your questionnaire responses remain entirely anonymous. We ask that you complete the questionnaire carefully and in good faith.

What information do you collect?

We collect information, including the following on an anonymous basis:

- Factual information such as your marital status and number of children
- Certain high-level information about recent illnesses
- Information on your job role

Information is collected anonymously, and you may cancel the questionnaire process at any time if you decide that you do not wish to proceed.

What will you do with the anonymous information?

The University of Xxxxxx has contracted with Robertson Cooper Limited to conduct the survey and, as such, is likely to run this kind of survey again in the future in order to monitor whether any interventions to improve the quality of working life have been successful. Robertson Cooper Limited will therefore store the anonymised data from this survey with a view to making comparisons with subsequently collected data.

Will the information be secure?

Robertson Cooper Limited will take appropriate technical and organisational measures in order to maintain the security of the anonymous information collected, prevent

unauthorised or unlawful processing of this information and ensure that an adequate level of security is maintained to protect the anonymous information against loss, misuse, alteration or damage.

Will the information be transferred to a third party?

Robertson Cooper Limited will not sell, distribute or lease the anonymous information to a third party. The ASSET server and database reside inside the UK, and the data will not be transferred outside of the UK for any reason.

Appendix D: Permission to Use ASSET for Research

ASSET Research Use

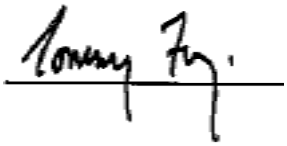
Terms and Conditions

We allow ASSET to be used for research on the condition that:

1. A short research proposal should be presented to Robertson Cooper Ltd (RCL) stating project objectives.
2. The intention of the researcher should be to publish the findings in reputable scientific journals, conferences, etc.
3. On publication, the research article must have a reference to 'ASSET as published by Robertson Cooper Ltd' within the body of the text.
4. The ASSET tool should then be referenced as *ASSET: An organizational stress screening tool: The management guide.* Manchester, UK: Robertson Cooper.
5. The principal should provide sufficient information about their research experience to satisfy RCL that they have the capabilities to conduct the proposed research. This requirement is waived when the proposed project is funded by a recognized funding body (e.g. government research council such as ESRC) or part of a recognized postgraduate degree course.
6. The purpose of the research should be to enhance scientific knowledge and not to provide stress audits or consultancy advice to organizations. For this reason only overview reporting of results will be appropriate.
7. To safeguard RCL's professional standards RCL reserve the right to have view of any reporting documents prior to publication.

8. Should the collaborating companies require more detailed analysis of the data, this will be provided by RCL at commercial fee rates.
9. RCL must be allowed to refer to research publications and survey results as ASSET case studies and marketing material, including publishing on RCL web site.
10. RCL must be provided with the research data to add to the ASSET normative database.
11. The researcher must sign this agreement to the conditions before ASSET can be used in a publication.
12. Should any of the conditions not be met RCL reserves the right to re-estimate use of ASSET at commercial prices.

Signed



Date: 3 June 2014