

Analysis of the Factors Influencing Job Strain: Empirical Evidence from Saudi Arabia

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ABSTRACT

This study analyzes the relationship between several factors effecting job strain among university staff. The study used a regression analysis model based on an extensive review of related literature. The population and sample were drawn from university staff at Imam Abdulrahman Bin Faisal University in Saudi Arabia. A questionnaire survey was used to collect data from 177 professor. The results revealed that a relationship exists between the study variables as well as tolerance of ambiguity and work engagement have an effect on the study variables. Based on these results, academicians and decision makers at university level, need to clarify lecturers' activities to promote positive learning environment as well as improve psychological, social and work outcomes.

Keywords: Job Strain, University, Work Engagement, Tolerance Ambiguity.

Introduction

In the literature dedicated to business, academia and education, both engagement and tolerance of ambiguity have been attraction increasing interest among scholars (e.g., Wasilowski, 2018). The authors indicated that engagement and tolerance of ambiguity are important predictors of positive outcomes including enhanced life quality, health and successes in the organization (Wasilowski, 2018). According to Caesens, Stinglhamber and Marmier (2016) and Schaufeli and Bakker (2004), engagement is a positive, enriching, mind state in the workplace that is distinguished through vigor, dedication and absorption. According to Steffy, Joes and Noe (1990), an employee's health may be maintained through the engagement in suitable coping behaviors, which minimizes the effects coming from psychological and somatic stress. On the contrary, work engagement loss can impact satisfaction and can lead to a stressed employee (Wilmar, Arnold, & Marisa, 2006). In this regard, employees, who align the demands of their work to their job skills and commitment, are more likely to experience high work-engagement and that engaged employees that display energy, enthusiasm, happiness and pride in their work are more likely to be consistent in their work and to keep their positions in their organization. Additionally, those who are engaged in their workplace have a higher likelihood to have a good life quality and coping behaviors compared to their counterparts. Moreover, tolerance of ambiguity is another personal factor that has been related to several employees' strain indicators. The concept of tolerance of ambiguity is described as the way an individual or a group perceives and processes information regarding unclear situations when faced with clues that are unfamiliar, complex and inconsistent (Furnham & Ribchester, 1995). In other words, an individual that has high tolerance for ambiguity looks forward to ambiguous situations and finds them desirable, challenging and interesting, and he/she tend not to misinterpret incongruity complexity but is rather gravitate towards tackling the ambiguous issues (Furnham & Ribchester, 1995). In addition, workplace psychological and health factors may have preventive impacts on the employees' health and abilities. Among them, job strain has been the topic of many researches because of its relationship with work-related results like leave intention, low productivity and high rates of turnover (Keegel, Ostry, & La Montagne, 2009; Idris, 2011). The occurrence of job strain, according to Martin,

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Bronzatti, Viera, Parra and Silva (2000), is more likely to appear in an environment that is deemed by the individual as a threat, characterized by personal and professional demands that are way beyond his/her ability to cope with. In fact, job demands are considered to adversely impact the psychological health and well-being of the employee (Lindberg et al., 2001). Thus, the popularity of job demand concept and the relevant models is justified in research circles. Furthermore, employees cope with job demands, in the form of workload, relationships with coworkers and work ability by presenting different symptoms of stress and strain, ranging from burnout, health problems to job dissatisfaction, psychological distress, loss of concentration, loss of work sense and even depression (Van der Doef, Maes, & Diekstra, 2007; Trepanier, Fernet, & Austin, 2012). Despite the proportion of literature that evidenced the workloads among the teaching staff that often lead to stress and strain, not all staff is affected by the job demands in the same way (Seemer, 2003). In relation to this, maintenance of optimal stress level can lead to higher engagement of the employee but the findings concerning the work engagement-stress/strain relationship are still few and far between (e.g., Tummers, Steijin, Nevicka, & Heerema, 2016; Vigoda-Gadot, Eldor, & Schohat, 2013). To compound the matter further, studies that examined the mediating role of work engagement in literature are still lacking (Borst, Kruyen & Lako, 2017). In a related study, Bakker and Demerouti (2007) examined individual resources, work engagement, organizational commitment and intention to leave using the JD-R model. Similarly, Borst et al. (2017) showed that job demands are predictors of positive/negative psychological outcomes as well as work engagement. Meanwhile, previous studies (Schaufeli, 2015; Ram & Prabhakar, 2011) showed work engagement to be a top predictor of work-related outcomes. From the reviewed literature, it is evident that work engagement and tolerance of ambiguity have not been extensively examined in the context of Saudi Arabia and also around the world. Literature lays stress on the need to clarify the antecedents, moderators and outcomes and the reciprocity of role stress, work engagement and tolerance of ambiguity, along with other important variables in the literature in the field of academia (Wasilowski, 2018; Frone, 1990). Thus, this study primarily aims to extend the JD-R model and work engagement to provide further insight into the positive/negative experiences of educators and their job attitudes. The study also attempts to investigate the lowering of the level of stress and strain through the factors that (positively and negatively) influence the jobs of educators in universities. This will contribute to filling the gap in literature at the level of international and local contexts. In fact, only a few studies have been dedicated to stress and strain and the factors that influence their relationship in the case of Saudi Arabia. While globally, while several studies have been focused on the role of educator's stress and its outcomes, only a few results, and inconsistent at that, have been made available on the individual characteristics such as tolerance of ambiguity and work engagement (e.g., Simon & Amarakoon, 2015; Bakker, Albrecht, & Leiter, 2011). In addition to the above, Schaufeli (2015) related that work engagement is frequently analyzed as a mediating variable between the JD-R model and the outcomes and thus, this study extends prior studies by examining the impact of engagement and tolerance ambiguity on the stress-strain relationship among educators. The research specifically proposes the impact of work stress and work engagement on the strain level of educators, and the moderating role of tolerance of ambiguity on the relationship between educators' stress and work outcomes as suggested by Frone (1990).

Literature

Theoretical Framework

According to the job demand resource (JD-R) model by Schaufeli and Bakker (2004), every occupation is characterized by certain factors related with job stress and these can be divided into two namely, job demands and job resources (Bakkar & Demerouti, 2007). While job demand is the physical, psychological, social or organizational aspects that may cause stress once they demand for high effort (Bakker & Demerouti, 2007; Schaufeli & Bakker, 2004), job resources are the physical, psychological, social or organizational work aspects that assist in achieving goals, mitigating demands on the job, and boosting motivation as well as personal development (Bakker & Demerouti, 2007; Hakanen, Bakker, & Schaufeli, 2006). In the field of academia, evidence shows that role overload, role ambiguity and role conflict are experienced by academics (Taris, 2001; Gillespie, Walsh, Winefield, Dua, & Stough, 2000). Similarly, role overload

and ambiguity were found by Idris (2011) to be predictors of psychological strain. Also, other studies including Huda et al. (2004) indicated that role ambiguity, conflict and overload could develop stress symptoms. In the same line of study, majority of academicians were found to have a higher inclination to quit higher education or to regret opting for an academic career (Kinman, 2001). Some other studies like Gillespie et al. (2001) and Tytherleight, Webb, Cooper, and Ricketts (2005) found role overload to predict stress at work, with lack of research finance, lack of support, task overload, poor leadership and job security being the sources of stress, insecurity on the job, loss of control and communication problems. Past researches also revealed that role stressors have a significant impact on the outcomes (individual and organizational). Because majority of psychological approaches assuming that human behaviors stem from the personal-environmental factors interaction, and as such, it becomes pertinent to integrate personal resources into the JD-R model as suggested by Schaufeli and Taris (2014). The relationship between stress and strain has been reported by several past studies including Posig and Kickul (2003). Conceptually, stress refers to a process arising in individuals who are stressed, following which there are several related outcomes like cynicism, loss of professional efficacy, mitigated commitment to the organization and leave intention (Idris, 2011). In this regard, academics have been highlighted to encourage several challenges in their jobs primarily because of job overload (Gillespie et al., 2001). Strain refers to the affective feeling states experienced by individuals that are signified by the lack of emotional resources and energy (Lee & Ashforth, 1996). Similarly, it was defined by Idris (2011) as a specific form of emotional distress originating from the response to a situation and it entails feelings of threat to the individual's well-being, while Winnubst (1993) referred to it as a multi-process involving behavioral, psychological and physiological factors that arise after experiencing stress and it disrupts the normal functioning of the individual. Moreover, psychological strain has been defined as the psychological outcomes appearing in response to the demands of the organization and it manifests in stress form. With regards to organizational commitment, it is the relative strength of the identification of the employee with and involvement in a certain organization (Mowday, Steers, & Porter, 1979). Generally speaking, higher strain levels are considered to play a role in mitigating the commitment of the employee to the organization (Idris, 2011). Despite this finding, organizational commitment may not always be negative in the workplace, for example, in Idris's (2011) study, the author found affective commitment to motivate employees that are involved with the activities of the organization, and Schmidt (2007) found that higher commitment levels will mitigate stress levels. In relation to this, higher levels of ambiguity may arise because of the lack of clarity of the way various teaching activities and research and professional services should be handled to successfully achieve the role of academia (Idris, 2009). To this end, role conflict affects academics with a combination of factors, including higher teaching loads, limited resources and higher stakeholders' demands, and thus, strain has the potential to occur (Idris, 2009). According to Klaus-Helmut (2007), employees that are highly committed showed lower stress levels and lower burnout levels. Meanwhile, in Siu's (2002) study, individuals who are committed have lower stress levels and in the case of academics, according to Gillespie et al. (2001), challenges are often faced in the allocated positions because of task overload. Due to lack of clarity, ambiguities may arise on how to tackle teaching activities and services for academic success (Idris, 2009). Therefore, researchers opined that role overload, conflict and ambiguity have a direct relationship to strain (Idris, 2009). Both role overload and ambiguity predict psychological strain (Idris, 2011) and furthermore, role ambiguity, conflict and overload can result to the stress symptoms development (Huda et al., 2004). In the field of academia, Kinman (2001) revealed that most academicians perceive that they would be better off leaving higher education and that they regret opting to follow an academic career. In the same line of study, role overload was found to be a predictor of occupational stress (Sun et al., 2011), while other studies such as Gillespie et al. (2001) and Tytherleight, Webb, Cooper and Ricketts (2005) evidenced that the stress sources include lack of research finance, lack of support, task overload, ineffective leadership and job insecurity, loss of control and communication issues. Literature has indeed evidenced the relationship between role stressors, and strain and professional commitment, particularly with studies like Posig and Kickul (2003; 2007), but despite this fact, authors still call for the examination of the academic circles in light of the relationships (Idris, 2011). Added to the above studies, job resources and demands were reported to generate positive outcomes (e.g., work engagement) in Xanthopoulou, Bakker, Demerouti, and Schaufeli (2009) study.

According to Demerouti et al. (2001), JD-R is a physical, psychological, social or organizational job aspects that mitigate the adverse job demands effects while assisting in reaching work goals and stimulating personal growth, learning, demands and positive work engagement. Moreover, in another related study, JD-R was found to have a positive effect on organizational commitment via work engagement by Hakanen et al. (2006).

Work Engagement as Mediating and its Outcomes

Work engagement leads to positive work-related outcomes based on several reasons, the first of which is, engaged individuals find their experiences fulfilling, as a result of which they direct their physical, cognitive and emotional energies to achieving optimum performance (Priyadarshi & Raina, 2014). Work engagement has been evidenced to be a predictor of positive/negative outcomes (both psychological and organizational); for instance, in Hakanen and Schaufeli's (2012) study, the authors revealed that work engagement negatively affected depressive symptoms and positively affected employee satisfaction. In another study, Schaufeli and Bakker (2004) related that employees who are engaged in their work are highly attached to the organization and their inclination towards quitting it is quite low. In other words, an employee who is engaged in this work trusts his relationship with the organization, as a result of which, such employee will harbor a positive attitude towards his work. According to Eisenberger, Jones, Aselage, & Sucharski, (2004), the individual's perception of his work environment will have implications on the way he approaches his job, his coworkers, the organization and eventually, it will have implications on his well-being and psychological state. Literature has its share of studies that explored job demands and resources as antecedents of work engagement, with job demands reported to contribute to positive psychological well-beings of employees, particularly academicians (e.g., Tadic, Bakker, & Oerlemans, 2015; Bakker, Demerouti, & Sanz-Vergel, 2014). Such demands pose challenges and resourcefulness that are work-related (Breevaart & Bakker, 2018). In this relation, JD-R model encapsulates factors including role overload, role ambiguity, role conflict, support and feedback and task significance (Bakker & Demerouti, 2007; Schaufeli & Bakker, 2004; Bakker & Demerouti, 2008). Breevaart and Bakker (2018) illustrated the similarities of the attributes with the required knowledge traits, which means, JD-R is significant as an antecedent of work engagement. In particular, work engagement is a positive, enriching, mind state that is related to work signified by vigor, dedication and absorption (Schaufeli, Salanova, Gonzalez-Roma, & Bakker, 2002, p.74). According to other studies, employees who are engaged in their work have better physical health, are more satisfied when it comes to their psychological needs and are more committed compared to their counterparts who are not engaged in their work (Barret-Cheetham, Williams, & Bednall, 2016). Thus, work engagement is a crucial component in this research field (Vigoda-Gadot et al., 2012). Nevertheless, authors that applied JD-R model combined with work engagement failed to consider certain circumstances of occupations and contexts (e.g., Bickerton, Miner, Dowson, & Griffin, 2015; Bakker et al., 2014). Moreover, individual and organizational factors affect work engagement, which in turn, directs individual attitudes and behaviors (Khan, 1990). Hence, work engagement may have a mediating effect on the relationship between JD-R and job outcomes (Khan, 1990; Schaufeli, 2015). The mediating role of work engagement between job, personal resources and work-related outcomes has its basis on the premise that individual and organizational factors affect the employees' psychological work experience and such experience is what directs behavior at work (Schaufeli & Bakker, 2004; Sonnentag, 2003). In addition, work engagement makes the employee more willing to invest physical, emotional and cognitive resources to tasks given to him and such engagement is the one that urges him to display energy and passion, and in turn, work performance (Burke, 2008; Rich, Lepine, & Crawford, 2010). From the above explanation, it is evident that a resource job and personal induced investment of self is represented by engagement and ultimately, heightened work performance, making work engagement play a mediating role (Rich et al., 2010). In the present study, work engagement is proposed to mediate the relationship between job demands and strain outcomes and affective professional commitment. The mediating role of work engagement between job demands and strain and professional commitment has largely been left untouched in the academic field. Moreover, the motivation model of engagement proposed by Schaufeli and Bakker (2010) posits that mediating role of work engagement on the relationship between antecedents (job demands and resources) and organizational commitment and strain. Along the same study line, Ferrer and Morris (2014) conducted an

examination of the mediating role of work engagement on the relationship between affective commitment and intention to quit. General stream of studies primarily aimed to understand the role of work engagement in relation to factors like strain, organizational commitment and job outcomes (Borst et al., 2017; Hakanen et al., 2006), while the present study aims to test its mediating effect in the university context. In a more recent study by Breevaart and Bakker (2018), work engagement was evidenced to be significantly related to employees' job demands. This is similar to the findings reported by Barret-Cheetham et al. (2016), who found that work engaged employees were physically healthier, more satisfied and more committed in comparison to their lower work engaged counterparts. Work engagement is a state of mind and it is a reflection of the psychological needs satisfaction (physical, cognitive and emotional) and thus, it may well lead to positive results like affective commitment and low stress levels.

Tolerance of Ambiguity as a Moderator and its Outcomes

Ambiguity tolerance is a concept that refers to the tendency to perceive/interpret information marked by different statuses as actual/potential sources of psychological discomfort or threat (Norton, 1975). In various occupational settings, including education, tolerance of ambiguity has been established based on its importance. This is evidenced by several studies, among which is Chaturvedula, Raghuraman, and Murthy (2017) who related that ambiguity intolerance has a tendency to lead to anxious and withdrawn responses from unfamiliar situations as individuals with low tolerance to ambiguity tend to perceive threats in differences, disagreements and conflicts. In the same line of argument, lack of flexibility in times of transition or during communication between different and conflicting aspects of circumstances can lead to individual's distress, lack of control, tense feeling, withdrawal intentions from the situation and perceived source of stress (Baure & Truxillo, 2000; Kang & Singh, 2001; Frone, 1990). Contrastingly, individuals who are highly tolerant of ambiguities urge other individuals to perceive ambiguity as a natural or even desirable occurrence and acts towards its toleration and accommodation (Chaturvedula et al., 2017). In this regard, there are many studies that indicated the importance of tolerance ambiguity in its prediction of positive personal and organizational outcomes (e.g., Iannello, Antonietti, Mottini, & Tirelli, 2017).

The JD-R model posits that factors have a buffering effect on the well-being of employees, with specific skills required in order to cope with work stressors (Bakker & Demerouti, 2014). Studies have been carried out to test the effect of individual differences on the relationship between job demands and strain, but more studies are still required to clarify the relationship. Consistent with majority of psychological approaches, it is assumed that human behavior stems from the relationship between personal and environmental factors and thus, personal resources should be included in the JD-R model as suggested by Schaufeli and Taris (2014) and Williams, Wissing, Rothmann, and Temane, (2010). The findings showed that job demands did not generally produce psychological strain, but it is the way they are appraised in that the appraisal approach is influenced by individual differences (e.g., self-efficacy and job control). In Sui et al.'s (2007) study, the authors found that self-efficacious employees had a greater tendency to perceive no threats in their environment and low self-efficacious employees were the opposite. Despite the fact that self-efficacy has been evidenced to mitigate this experience, this does not hold true for every case (Xanthopoulou et al., 2007), and thus, individual characteristics call for extensive and in-depth examination as recommended by Trepanier et al., (2013). Aside from self-efficacy, among the significant individual factors that has been connected, time and again, to employees' strain is tolerance of ambiguity. Notably, several studies showed that tolerance for ambiguity has not been often mentioned and include in work related field (Furnham & Ribchester, 1995; Herman, Stevens, Bird, Mendenhall, & Oddou, 2010). More specifically, the tolerance of ambiguity concept is described as the way an individual perceives and processes information regarding ambiguous situations when faced by different complex and ambiguous clues (Furnham & Ribchester, 1995). Furnham and Ribchester (1995) added that tolerance ambiguity has been examined based on various contexts and in Katz (2001), it has been linked to a personality variable, while Furnham and Gutner (1995) described it as a property of the organization. Yet, until this day, its popularity as a research topic in light of individual difference is still attractive to clinical and organizational psychology. According to Bunder's (1962) pioneering study, an ambiguity intolerant personal will fail to categorize ambiguous situations owing to the lack of enough cues. In the same line of study, Norton (1975) looked into the ambiguity concept to provide insight into how an individual perceives, responds and interprets ambiguous

situations and other researchers including Bauer and Truxillo (2000), Kang and Singh (2001) and Frone (1990) revealed that ambiguity intolerance leads to the feeling of discomfort, lack of control and it may act as a stress source. In the workplace context, tolerance for ambiguity predicts the success of expatriates (Moi et al., 2005). Other studies like Hellesoy and Gundersen (2011) reported that ambiguity tolerance has a significant and positive relationship with work adjustment, but it has no moderating effect on the relationship between transformational leadership effectiveness and work adjustment. Meanwhile, in Khan et al.'s (1964) study, their proposed role episode model stressed on the identification of a variable like tolerance ambiguity and its moderating role in the relationship between perceived role stress and non-concomitant outcomes. However, despite the above studies, only a few have been directed towards the role of tolerance ambiguity in the processes of occupational stress as evidenced by Idris (2009), Hellesoy and Gundersen (2011) and Moi et al. (2005). In the same study caliber, Beehr (1998) indicated that situational and personal characteristics have a moderating role in the stressor-strain relationship, and this may contribute to or hinder the relationship. In other words, an individual who is highly tolerant for ambiguity perceives ambiguous situations as desirable, challenging and interesting and strives not to distort incongruity complexity as a result of which, he/she has a tendency to tackle ambiguous issues (Furnham & Gunter, 1995). Contrastingly, individuals with low tolerance for ambiguity are more vulnerable to stress (Keinan, 1994). In the context of instructors and lecturers, those with high work ambiguity tolerance will have low level of strain as the former is an individual difference construct that provides a description of the process, interpretation and reaction of individuals. Also, in another related study, Endres et al. (2015) revealed the moderating role of ambiguity tolerance in the relationship between task complexity and self-efficacy, as well as between task complexity and self-efficacy accuracy in the prediction of future outcomes. Nevertheless, aside from a few studies like Hellesoy and Gundersen (2011) and Moi et al. (2005), the moderating effect of ambiguity tolerance in different contexts and their outcomes has not been extensively examined (Furnham & Marks, 2013). And more importantly, despite the positive findings that revealed the moderating role of tolerance of ambiguity in the relationship between stress and strain, the findings are inconsistent and thus, inconclusive and some limitations are found in the settings and samples of the studies and thus this calls for further examination. Prior studies investigated tolerance ambiguity with work-related variables, but this study is unique in that it extends the model by clustering tolerance ambiguity into two levels namely, high and low. In this regard, low ambiguity tolerant individuals adversely react to ambiguous situations owing to the lack of information perceived that makes it challenging to conduct risk assessment and to make informed decisions, in which case, the ambiguity is perceived as a threat and a source of discomfort. The reactions to such threat manifest in the form of stress, avoidance and delay (Furnham & Ribchester, 1995; Furnham & Marks, 2013). This makes it crucial to examine the tolerance ambiguity level effects using the job-demands model. In Keenan and Mc Bain's (1979) study, the authors conducted an assessment of the job demands and strain relationship, with intolerance for ambiguity as a moderating variable among managers. Meanwhile, Frone's (1990) meta-analysis considered the different impacts that job demands have on employees and organizational outcomes, and it seems that the relative importance of individual differences (tolerance of ambiguity) in the job demands-strain and professional commitment relationships still requires thorough examination.

Research Methods

Study Design

This study adopted a cross-sectional data questionnaire, with questionnaire copies numbering 177 distributed to the teaching staff members of a Saudi public university. The teaching staff members were full-time instructors from different colleges, and they were divided by gender into 128 male instructors and 49 female instructors.

Research Hypotheses

This study investigates the factors have a significant effect on university staff strain. Therefore, this study proposes the following hypotheses for testing:

Hypothesis 1: Job demand is significantly related to psychological strain.

Hypothesis 2: Job demand is significantly related to organizational commitment.

Hypothesis 3: Work engagement fully mediates the relationship between job demands and strain.

Hypothesis 4: Work engagement fully mediates the relationship between job demands and organizational commitment.

Hypothesis 5: Work engagement fully mediates the relationship between job demands and intention to leave.

Hypothesis 6: Tolerance of ambiguity fully moderates the relationship between job demands and strain.

Hypothesis 7: Tolerance ambiguity fully moderates the relationship between job demands and organizational commitment.

Procedures and Measurements

The study data collection procedure was carried out over a two-month period. The author first forwarded a written informed consent to conduct the study targeting the teaching staff members at the University of Dammam, located in East Saudi Arabia. The researchers divided themselves into groups with each being responsible for a college/department. They visited the colleges and spoke with the volunteering lecturers, after which 177 questionnaire copies were distributed and later on, retrieved. This study is a part of a larger research project concerning the behaviors of lecturers. The variables in the self-administered questionnaires were measured through a multi-item scale, each adopted from prior studies. Each scale's reliability and validity were established using several steps. Job demand variable was utilized to assess three work demands namely, workload, work ambiguity and work conflict. Workload was measured by the Quantitative Workload Inventory (QWI) by Spector and Jex (1998), with responses measured on a 6-point Likert scale that ranged from 1 (never) to 6 (all the time). Examples of items from this scale are; "my job requires me to work very fast", and "my job requires me to work very hard". The Cronbach's alpha for this scale was 0.80. Moving on to role ambiguity, this study assessed the variable using 6 items, gauged on a 6-point Likert scale, which ranged from 1 (never) to 6 (all the time). Some sample items include, "my job has clear, planned goals and objectives", and "I feel certain about how much authority I have". The Cronbach's alpha of this scale was 0.85. For role conflict, 6 items from Rizzo, House, and Sidney (1970) were adopted for its measurement, gauged on a 6-point Likert scale that ranged from 1 (never) to 6 (all the time). Some sample items include, "I receive an assignment without adequate resources" and "I work on unnecessary things", with a Cronbach's alpha of 0.68. With regards to the construct of psychological strain, 12 items were adopted from Goldberg's (1978) general health questionnaire, gauged on a 6-point Likert scale that ranged from 1 (never) to 6 (all the time). Some of the items include, "been able to concentrate on what you are doing" and "been feeling unhappy or depressed", with a Cronbach's alpha of 0.74. Moving on to work engagement, 17 items proposed by Schaufeli, Bakker and Salnova (2006) were adopted and gauged on a 6-point Likert scale, which ranged from 1 (never) to 6 (all the time). It had a Cronbach's alpha of 0.78. Moreover, tolerance of ambiguity items were adopted from Norton (1975) and they numbered 22, measured on a 6-point Likert scale, which ranged from 1 (never) to 6 (all the time). Some of the items include "I don't tolerate ambiguous situations well" and "I try to avoid situations which are ambiguous", and they had a Cronbach's alpha of 0.80. Lastly, organizational commitment items numbered 7 and they were adopted from Allen and Meyer's (1996) study with Cronbach's alpha of 0.81.

Results

The study included the demographic variables of gender, age, teaching experience and income level. The variables are divided into categories (male and female for gender; 25-30 years old, 31-40 years old, 41-50 years old, and 50 and above for ages; 1-5 years, 6-10 years, 11-15 years and over 15 years for years of experience). This study used SPSS to analyze the collected data, more specifically using internal consistency, descriptive statistics, correlation and regression analysis of the variables. Table 1 contains all the correlation analysis results of the variables. From the table, it is clear that role overload, role conflict and role ambiguity ($r = .741, p < .05$; $r = .535, p < .05$; $r = .244, p < .05$ respectively) all had positive and significant relationship with psychological strain, which indicates support for hypothesis 1 to 3. In addition, role overload, role conflict and role ambiguity ($r = .030, p > .05$; $r = .089, p > .05$; $r = .702, p < .05$ respectively) had a partial positive relationship with organization commitment, which indicates support for hypothesis 6, but hypotheses 4 and 5 were rejected. For work engagement, role overload, role conflict and role ambiguity ($r = .040, p > .05$; $r = .562, p < .05$; $r = .823, p < .05$

respectively) positively related to engagement. In addition to the above results, role overload ($r = .072, p > .05$), role conflict ($r = .504, p < .05$), and role ambiguity ($r = .738, p < .05$) all had a positive relationship with tolerance for ambiguity. Lastly, engagement, tolerance for ambiguity ($r = .409, p < .05$; $r = .385, p < .05$ respectively) had a positive relationship with strain, with the exception of commitment ($r = .079, p < .05$).

Regression Analysis

This study used regression analysis to test the effects of job demands on strain and organization commitment. Table 2 displayed that job demands managed to explain a considerable amount of variance in psychological strain ($R = .958, R^2 = .918, F = .642.721, P = < .0$). Further investigation was carried out to confirm the independent variables that had the highest effect on psychological strain and the results indicated that role overload ($B = .492, t = 35.842, p < .05$) and role ambiguity ($B = .472, t = 26.773, p < .05$) significantly impacted psychological strain but role conflict did not ($B = .035, t = 1.728, p > .05$). From the results, it is also evident that role overload explained a significant amount of variance in organization commitment ($R = .706, R^2 = .498, F = 57.171, p = < .05$). Table 3 showed held true for which independent variables had the highest effect on psychological strain and based on the results, role overload ($B = -.044, t = -.973, p > .05$) and role ambiguity ($B = -.062, t = -1.056, p > .05$) had insignificant effects on strain but role conflict had a significant effect on the same ($B = .872, t = 12.972, p < .05$) (refer to Table 3).

Table 1: Summary of Correlation between Variables

Measure	1	2	3	4	5	6
Role Overload	----					
Role Ambiguity	-.091					
Role Conflict	.109	.198*				
Strain	.741*	.535*	.244*			
Commitment	.030	.089	.702*	.079		
Engagement	.040	.562*	.823*	.409*	.615*	
Ambiguity Tolerance	.072	.504*	.738*	.385*	.519*	.790*

Note: * $p = < .05$

Table 2: Regression Analysis: Predictors of Psychological Strain

R	R-square	Adjusted R-square	F	Sig.
.958	.918	.916	642.721	.000*
Variables	B	t	Std. Error	Sig
Role Overload	.492	35.942	.014	.000*
Role Ambiguity	.472	26.773	.018	.000*
Role Conflict	.035	1.728	.020	.086

Note: * $p = < .05$

Table 3: Regression Analysis: Predictors of Organization Commitment

R	R-square	Adjusted R-square	F	Sig.
.706	.498	.489	57.171	.000*
Variables	B	t	Std. Error	Sig
Role Overload	-.044	-.973	.046	.332
Role Ambiguity	-.062	-1.056	.059	.292

Role Conflict	.872	12.972	.067	.000*
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Note: *p = <.05

Mediating Effects of Work Engagement

There are three required criteria that have to be established in order to confirm mediating effects. The first criterion is that the independent variable should be related to the mediating variable and the second is that the mediating variable should be related to the dependent variables. The third criterion is that the significant relationship between the independent and dependent variables will be decreased with the introduction of the mediating variable, in which case the mediating effect is partial, or the relationship will no longer remain significant when the mediator is controlled. All three criteria were partially met for this study's hypotheses. Mediating models were used to test the mediating role of work engagement between role conflict and psychological strain, role ambiguity and psychological strain and role overload and psychological strain. First, the mediating model was tested to check whether work engagement mediates the relationship between role overload and the criteria mentioned above were checked. It turned out that role overload was not related with work engagement and was therefore dropped from the analysis. Hence, two mediating models remained and were tested for the mediating effect of work engagement. Table 4 showed that the model had a cumulative variance explaining 0.554 of psychological strain. Role ambiguity explained reduced variance ($B = .472, <.000$ to $B = .386, <.000$) while role conflict explained increased variance ($B = .035, >.086$ to $B = .103, >.400$), with the introduction of work engagement into the equation. Notably, work engagement partially mediated between role ambiguity and psychological strain but not role conflict and psychological strain. In the second mediation model, the hypothesis of work engagement mediating role on the relationship between job demands constructs and organizational commitment was tested. The first criterion was tested, and it revealed that role overload was not related with organization commitment. The second criterion was tested, and it revealed that only role conflict was related with work engagement, which is the mediating variable and thus, the mediating effects were tested for the relationship between role conflict and organizational commitment. The model's cumulative variance that explained psychological strain was 0.554. The role conflict explained variance of organizational commitment decreased ($B = .872, <.000$ to $B = .735, <.000$), with the introduction of work engagement into the equation. Therefore, work engagement was found to have a partial mediating effect between role conflict and organization commitment.

Table 4: Work Engagement and Organization Commitment as Mediators

	Psychological Strain		Organization Commitment	
	B(t) sig	B(t)	B(t)	B(t)
Role Ambiguity	.472* (26.773, .000)	.386* (5.28, .000)---	---	---
Role Conflict	.035(1.728, .086) .103(.84, .400)	.851* (13.03)	.735*(6.39, .00)	
R=	.958, R2 = .918		R = .702, R2 = .492	
Adjusted R =	.916		Adjusted R = .490	
F =	642.721		F = 169.811	
Work-Engagement				
R =	.554, R2 = .307		R = .705, R2 = .497	
Adjusted R =	.294		Adjusted R = .491	
F =	25.488		F = 85.913	

Note: *p = <.05

Moderating Effects of Tolerance for Ambiguity

With regards to the proposed moderating effect of tolerance for ambiguity between the relationship of job demands and psychological strain and between job-demands and organization commitment (hypotheses 3 and 4), there were two regression analysis sets conducted. Added to this, multicollinearity was calculated to establish its absence among the study variables prior to calculating the interacting terms as suggested by Aiken and West (1991) and Kline (1998). The

regression analysis of each was conducted in two steps. In the first step, the first independent variable and dependent one was simultaneously entered and in the second step, the independent variable entered in the first step and psychological strain was entered into the equation. From the calculating the incremental variance (ΔR^2) constituted by the interaction term reflects the interaction effect size. For hypothesis 3, job demands constructs (role overload, role ambiguity and role conflict) relationship with psychological strain and the moderating role of tolerance for ambiguity on the relationship was tested. For the first construct of the variable, role overload indicated contribution to the explain variance ($\Delta R^2 = .657$, $F(113.138) = .000$, $p < .05$), with role overload significant at ($B = .418$, $t = 10.881$, $.000 < .05$) and tolerance ambiguity significant at ($B = .390$, $t = 7.497$, $.000 < .05$). The overload-tolerance for ambiguity interaction term ($B = .051$, $t = 1.015$, $.311 > .05$) was decreased to insignificance and thus role overload was fully supported. With regards to role ambiguity and tolerance for ambiguity, a significant contribution was also noted on the explained variance ($\Delta R^2 = .305$, $F(26.782) = .000$, $p < .05$), with role ambiguity significant at ($B = .278$, $t = 3.814$, $.000 < .05$) and tolerance for ambiguity significant ($B = .202$, $t = 2.343$, $.020 < .05$). The role ambiguity and tolerance for ambiguity interaction term ($B = .156$, $t = 1.793$, $.075 > .05$) was decreased to insignificance and thus, role ambiguity was not supported. For the last job demands construct, role conflict and tolerance for ambiguity, there was significant contribution to the explained variance ($\Delta R^2 = .173$, $F(13.270) = .000$, $p < .05$), with role conflict was significant at ($B = -.236$, $t = -2.190$, $.030 < .05$) and tolerance ambiguity was significant at ($B = .481$, $t = 3.998$, $.000 < .05$) but the role conflict-tolerance for ambiguity interaction term ($B = -.275$, $t = 2.726$, $.007 < .05$) was not reduced in its significance and role conflict was rejected. The same procedure was followed to test the moderating role of tolerance for ambiguity between job demands (role overload, role ambiguity and role conflict) and organization commitment. Role overload contributed significantly to the explained variance ($\Delta R^2 = .257$, $F(21.311) = .000$, $p < .05$), with role overload insignificant at ($B = -.143$, $t = -.351$, $.726 > .05$) and tolerance for ambiguity at ($B = .700$, $t = 1.848$, $.059 > .05$). The role overload-tolerance for ambiguity interaction term ($B = .034$, $t = .839$, $.735 > .05$) remained insignificant so the moderating hypothesis was rejected. Moving on to role ambiguity, it significantly contributed to the explained variance ($\Delta R^2 = .297$, $F(25.835) = .000$, $p < .05$), with role ambiguity insignificant at ($B = -.166$, $t = -.346$, $.730 > .05$), and tolerance of ambiguity at ($B = 1.071$, $t = 2.586$, $.011 < .05$). The role ambiguity-tolerance for ambiguity interaction term ($B = -.020$, $t = -.167$, $.868 > .05$) was reduced to insignificance and thus, this moderating effect is fully supported. Lastly, for role conflict, it significantly contributed to the explained variance ($\Delta R^2 = .484$, $F(56.072) = .000$, $p < .05$), with role conflict insignificant at ($B = .666$, $t = 1.489$, $.138 > .05$) and tolerance for ambiguity significant at ($B = -.160$, $t = -.387$, $.699 > .05$). The role conflict-tolerance for ambiguity interaction term ($B = .045$, $t = .417$, $.677 > .05$) remained insignificant and thus, this moderating effect was rejected.

Discussion and Conclusion

In the past few decades, significant changes have been experienced in the higher education and teaching professional activity and despite the fact that teacher's careers indicated low-stress, had secured opportunities for the performance of satisfying and autonomous work, this positive situation has undergone a significant increase in occupational stress (Bani-Isa, 2019; Gomes, Faria & Goncalves, 2013). Regardless of the studies dedicated to examining the stress-strain among teaching staff members and the stress outcomes on the personal and organization, it is still important to shed light on the factors in order to expound on the reason why some lecturers appear to overcome difficulties without having negative outcomes, while others have a tendency to be dysfunctional. Hence, to answer this call, the present study contributes to the literature on job demands resource JD-R model brought forward by Schaufeli and Bakker (2004) as it determines the factors effects in the context of lecturers. The study found that job demands (role overload, role ambiguity and role conflict) are partially related to psychological strain, with role overload positively related to the same. This result is aligned with the results of prior studies like Mulholland, Mc Kinlay and Sproule (2013) and Idris (2011). In particular, Mulholland et al.'s (2013) study that found the difficult time that academics have in achieving their assigned tasks because of task overload involving tight time deadlines, limited times and increased job responsibilities, which could all result in psychological strain. This shows that the first hypothesis is accepted, but not with regards to both role conflict

and role ambiguity. The insignificant result was also reported by Kebelo and Rao (2012) who revealed no significant relationship between role ambiguity and strain, unlike Idris (2011) who supported a significant relationship. The result is also supported by Fako's (2010) study that employees perceiving unambiguous responsibilities were not as likely to experience stress compared to their counterparts. With regards to role conflict, the present study's result is aligned with that of Idris's (2011) result that did not support the prediction of strain by role conflict. This may be attributed to the fact that the study sample was not provided rules and their roles were unclear and hence, job demands are just potential stressors, which could lead to strain in some circumstances. With regards to the hypothesized mediating role of work engagement, the results found in this study are consistent with past studies. For this relationship, studies that examined the effect of work engagement on the stress-outcomes relationship have been few and far between, with several theoretical proposals made lacking empirical support (e.g., Noesgaard & Hansen, 2017; Priyadarshi & Raina, 2014; Yalabik et al., 2013; Sulea et al., 2012; Schaufeli & Bakker, 2004). The present study indicated that work engagement is associated with individual outcomes in many ways. Work engagement partially mediated the relationship between role ambiguity and psychological strain and that of role conflict and psychological strain, with partial indirect paths confirming the support for the two hypotheses. This significant mediating role can be attributed to the fact that lecturers with low ambiguity levels are not as likely to experience strain in their workplace, when they are going about the university activities. Moreover, in Idris's (2009) study, job stressors and organization outcomes are indirectly related. In the present study, work engagement also partially mediated the independent-dependent relation, which can be attributed to that fact that because lecturers are familiar with their work roles and duties, their strain level is not high. Leiter and Maslach (1998) explained that engagement is an energetic involvement state with personality fulfilling activities that enhances professional efficacy. The partial mediating effect of work engagement between stress and organizational outcomes (commitment) was also supported by Molholland et al. (2013), with the pathway from stress to strain dependent on the interaction and the manner in which the individual perceived and experienced job characteristics. According to the JD-R model, role ambiguity and role conflict relationships with psychological strain and organizational commitment were partially mediated. For the moderating hypotheses concerning tolerance for ambiguity on the relationship between job demands and psychological strain, the results was supported by Dewe, O'Dricoll and Cooper (2012) and Idris (2011). This indicates that lecturers who are tolerant of ambiguities perceive less psychological strain in comparison to their counterparts who are not as tolerant. Tolerance ambiguity moderated the effect of stress roles on psychological strain. Studies of this caliber described tolerance ambiguity as the level to which and individual is confident in making decisions even when faced with ambiguous circumstances (e.g., Curseu & Vermeulen, 2008). The explanation is such that individuals who have high tolerance for ambiguity are frequently confident in making decisions and even with ambiguous and insufficient information. In contrast, those who have low tolerance for ambiguity feel threatened by the same situations and they attempt to mitigate the ambiguity by looking for information and establishing a structure upon which the situation can be clarified and categorized, and this will add to their confidence in decision-making and action-taking (Dremer, 1973; Kirton, 1981; Norton, 1975). The proposed moderating hypotheses of the present study were partially supported, and this is consistent with prior studies by Karatepe (2011), who found that resources such as, autonomy and organizational support moderate the relationship between emotional dissonance and symptoms of burnout. Hence, this study contributed to the call to examine the moderating effect of tolerance for ambiguity on the job-demands relationship with other variables.

Theoretical and Practical Implications

On the basis of the JD-R model, work-demands and related work variables have a partial and sequential mediating and moderating effect on the stress-psychological strain relationship. This study contributed to the JD-R model and stress-strain relationship literature by including two path coefficients namely, work engagement and tolerance of ambiguity. This study has several theoretical implications, the main implication of which is the extension of the stress-strain literature and the demonstration that work engagement does mediate job demands-psychological strain

relationship. In prior literature, the focus is mainly laid on work-related variables moderating effect on the same, with the mediating effects of work engagement largely ignored (Noesgaard & Hansen, 2017; Priyadarshi & Raina, 2014; Yalabik, Popaitoon, Chowne, & Rayton, 2013; Sulea, Virga, Maricutoiu, Schaufeli, Dumitru, & Sava, 2012). Following the JD-R model, the study conducted an analysis of the work engagement mediating role between stressors-strain factors to deepen the insight into the model and to respond to the call of past studies for the same (Noesgaard & Hansen, 2017; Priyadarshi & Raina, 2014). The study also resolved the limitations of prior studies which were confined to the job-demands strain relationship (e.g., Idris, 2011; Fako, 2010; Sulea et al., 2012). The empirical findings of this study indicated that work engagement has a mediating role in the relationship between job demands and psychological strain and they are consistent with the prior studies (Noesgaard & Hansen, 2017), who reported the mediating role of work engagement on work related factors and organizational outcomes (e.g., Ferrer & Morris, 2013; Priyadarshi & Raina, 2014; Yalabik et al., 2013). Moreover, this study extended research concerning JD-R model as prior studies were limited to individual differences and personality factors moderating stress-strain relationships with the moderating role of tolerance of ambiguity mainly ignored (Trepanier & Austin, 2013). Although some authors did investigate the moderating role of self-efficacy on stress-strain relationships, only a few managed to tackle the moderating role of tolerance ambiguity between job demands and job-related outcomes. This study furnished a new insight into stressors-strain relationship by including tolerance for ambiguity into the JD-R model, providing opportunities for further studies to extend the examination. Lastly, this study examined the effects of job demands on the psychological strain levels of lecturers. In this regard, past studies have examined this proposition but only a few have targeted university lecturers. This means that the present study contributed to the understanding of the stressors-strain relationship and mediating and moderating variables among a specific context (lecturers in universities), and it adds to extant knowledge. With regards to the practical implications of this study, the findings confirmed that job demands are partially related to psychological strain, which has also been confirmed in past studies. In relation to this, decision makers should mitigate job demands and distribute job tasks among employees based on their skills and specialties or come up with novel strategies (creating opportunities for employees) relating to training and scheduling regular activities of leisure.

Limitations and Recommendations

This study has some limitations, the first being that the study sample may not be considered as a representative of the general population owing to the fact that it was chosen from only a single Saudi university. This could limit the demographical and geographical generalization but, on this basis, future studies are furnished with avenues for research. Future studies can adopt the same design and framework but include all Saudi universities. The second limitation of this study concerns the quantitative data collection method adopted via self-report approach. Participants had ample chances to manipulate their answers based on several reasons; they may have become bored with the questionnaire so they chose answers that they think would satisfy the researcher and get over with the answering as quickly as possible. Therefore, the respondents to the survey may have (voluntarily/involuntarily) chosen answers that were not true to their experiences (Creswell, 1994). Therefore, it is recommended that future authors make use of the qualitative approach to provide deeper insight into the perception of lecturers in the universities.

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تحليل العوامل المؤثرة في الإجهاد الوظيفي: (دراسة تطبيقية في المملكة العربية السعودية)

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ملخص

هدفت هذه الدراسة إلى تحليل العلاقة بين العديد من المتغيرات التي تؤثر على الإجهاد الوظيفي لدى أعضاء هيئة التدريس الجامعي. وبناءً على الأدب النظري استخدمت هذه الدراسة اختبار معامل الانحدار. وتكونت عينة الدراسة من 177 عضو هيئة تدريس يعملون في جامعة الإمام عبد الرحمن بن فيصل في المملكة العربية السعودية. وأظهرت نتائج الدراسة أن هناك علاقة بين متغيرات الدراسة، إضافة أن تحمل متغير الغموض والانخراط في العمل كان لهما اثراً دالاً لعلاقة بين المتغيرات المستقلة والتابعة لهذه الدراسة. بناءً على هذه النتائج فإن الأساتذة الجامعيين، وصانعي القرار في مرحلة الدراسة الجامعية بحاجة إلى إعداد وتطوير أنشطة وبرامج لتعزيز بيئة عمل إيجابية، وكذلك تحسين مخرجات العمل النفسية والاجتماعية.

الكلمات الدالة: الإجهاد الوظيفي، الجامعة، بيئة العمل، تحمل الغموض.

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