

Work Stress And its Impact on Employees' Psychological Strain

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Abstract

Purpose: This paper aimed to determine the predictors of psychological strain and identify the multidimensional measures of psychological strain. *Design/methodology:* The current study involves a reviewed research articles which were gathered from Scopus and Science Direct databases. A total of 60 articles have been reviewed from the year 2015 to 2021. This study has been classified into work stress and psychological strain components, followed by its definitions and dimensions. *Findings:* It was observed that work stress affects various dimensions of psychological strain. The findings also reveal manifold work-related stressors, which can be classified into two main themes, which are work characteristics and psychosocial work characteristics. This paper also helps to understand the conceptual knowledge of work stress, psychological strain, and its causes and consequences in the workplace. *Practical implications:* Stress management workshops can be conducted in the different organizations across sectors on a regular basis which can educate employees about the sources of stress and its harmful consequences on their health and how they can reduce stress effectively. *Originality/value:* A total of 60 research articles on work-related stress and psychological outcomes are reviewed in this study. Further, the paper is classified based on major work stressors and dimensions of psychological strain in heterogenous occupations.

Keywords: Work Stress, Person-Environment Fit, and Psychological Strain

Introduction

It is well-known that the mismatch between the person and the environment at the workplace has resulted in work stress which in turn leads to psychological strain, where most of the time, the workplace environment demands exceed the person's ability. Consequently, work-related stress contributed to the escalating cost that ranged from \$ 221.3 million to an increase of \$ 187 billion (Hassard et al., 2017). Thus, it is becoming the leading concern of employers as employees' health is closely related to their productivity, organizational success, and enhancing the organization's economy (Health and Productivity, 2017; Benedict & Arterburn, 2008; Black, 2008). In most emerging nations, such as Malaysia, where over half of the population is employed, national employment rates are growing. (Department of Statistics Malaysia, 2020). This working group may expose to the risk of psychosocial factors and work-related stress, which its adverse effects on the health and well-being of employees are less significantly highlighted (Siegrist, 2015). The literature suggests that the employees' well-being and work outcomes are issues that must be addressed jointly, rather than merely focusing on traditional notions of job satisfaction and work stress (Genaidy et al., 2007). Thus, there is a clear need to address the psychosocial work stress to minimize the burden of work-related disease as well as organizational losses (Siegrist, 2015; Yao et al., 2015).

Therefore this paper has attempted to analyze the predictors of psychological strain in different countries and different sectors by reviewing 60 research articles. Besides, the present paper also aims to identify the multidimensional measures of psychological strain. The various meaning of work stress and psychological strain is also discussed in this study. The current study involves a reviewed research articles which were gathered from Scopus and Science Direct databases by using keywords of "work stress" and "psychological strain." The time frame for the inclusion of these articles is from 2015 to 2021. The articles related to work stress and psychological strain were reviewed and classified based on author (s) name, year of publication, study population, study design, country, stressor, outcome, and psychological strain dimensions (Table 3). Of all 60 articles reviewed, a total of 14 articles were used for the analysis that has met the inclusion criteria and the research objective of this study. In addition, a detailed analysis was done to identify key findings, research gaps, the scope for future research, implications, and followed by conclusions.

Review of Literature

Work Stress as a Predictor

A distressingly high number of mental health issues among the working-age group have recently been observed. Wide studies focus on work stress and job satisfaction; despite the importance of these variables, the focus is now shifting to employees' emotional and mental health (Mahipalan & Sheena, 2019). The mental health issue is primarily caused by work stress resulting in reduced employees' productivity, tense relationships, and loss of mental calmness (Sharma & Srivastava, 2020). Work stress scholars defined stressors as an environmental demand which exceeds a person's ability or skill to meet the challenge (Siegrist, 2015). This definition is in accordance with the definition by the World Health Organisation, which described occupational or job stress as "the response people may have when presented with work demands and pressures that are not matched to their knowledge and abilities, and which challenge their ability to cope" (World Health Organization, 2020). This definition

clearly demonstrates that stress occurs when employees' capabilities do not meet what is ultimately expected of them (Mahipalan & Sheena, 2019). More definitions of stress from previous studies are presented in Table 1.

Table 1

Definition of Work Stress

Work Stress	Definition	Source
Stress	Hardship, straits, adversity, or affliction	Cooper (1983)
Organizational stress	A situation in which the work-related factors interact with an employee, thereby leading to a change in the psychological and physiological state of the employee	Sharma & Srivastava (2020).
Stressors	Environmental demand which exceeds a person's ability or skill to meet the challenge	Siegrist (2015).
Occupational or job stress	"The response people may have when presented with work demands and pressures that are not matched to their knowledge and abilities, and which challenge their ability to cope."	World Health Organization (2020).
Work stress	An inability of an individual to meet the demands from the job due to the imbalance in the person-environment perceptions. It is the situation where individuals 'job performance, both physical and mental health, is affected poorly	Holmlund-Rytkonen & Strandvik (2005)
Job Stress	Work-related psychological pressure and a worker 's ability to respond and grip the specific situation at the workplace skilfully	Chen & Silverthron (2008)
Work stress	Series of physiological, psychological, and behavioural responses due to the continuing effects of one or more stressors on individuals in an organization	Yan & Xie (2016)

Psychological Strain as an Outcome

The numbers of psychological strain and strain-related concepts are defined and presented in Table 2. The term strain is distinctly described by previous scholars yet most are referring to the same concept of adverse effect or outcome of stressors (Lazarus & Folkman, 1987; Beehr, 1995; Van Dyne et al., 2002; Bhagat et al., 2010). Past study recognized that psychological strain occurs when environmental demands are perceived to exceed the adaptive capacity of the person (Sattler et al., 2020). This idea is in line with Panatik (2012), who suggested that strain has resulted from the mismatch between the person and the environment. In recent years there has been an increased interest in exploring the research area on work stress and psychological strain. Previous research has found that greater levels of stress overall can lead to serious psychological strain (Liu et al., 2019). Furthermore, evidence exists that whether periodic or aperiodic stressor has resulted in a longer duration of psychological strain such as depression or dissatisfaction (Dhiman, 2021). This current study has categorized the impact of multiple stressors on the psychological strain in different dimensions.

Table 2

Definition of Psychological Strain

Work Stress	Definition	Source
Strain	Individuals' psychological outcomes to stressors	Lazarus & Folkman (1987)
Strain	States that are harmful and usually have an adverse effect on the individuals experiencing them	Beehr (1995)
Strain	Affective, feeling states of the individual characterized by depleted emotional resources and lack of energy	Lee & Ashforth (1996)
Psychological strain	Individuals' subjective feelings for stressors they face in their surrounding environment	Van Dyne et al. (2002)
Psychological Strain	The outcome of organizational stress experienced at the individual level	Bhagat et al. (2010)

Table 3

Summary of Literature Search

No	Authors	Year	Study population	Study Design	Country	Stressor	Outcome	Psychological Strain Dimensions
1	Brough & Boase	2019	Australian lawyer employed in one Australian state	Cross-sectional	Australia	Job characteristics (Job demands, job control, and job support)	- Psychological strain-Job satisfaction -Work engagement	Psychological symptoms (GHQ)
2	Dhiman	2021	Indian family-run organizations	Cross-sectional	India	- Cultural Performance Appraisal (PA) context - PA justice elements - PA Context	Psychological Strain	PA Anxiety PA Dissatisfaction
3	Rivkin, Diestel, & Schmidt	2015	German health care provider	Cross-sectional	German	Self-control demands (SCD)	Psychological Strain	Ego depletion Need for recovery Burnout (Emotional exhaustion and Depersonalization)
4	Weinberg	2015	UK Member of Parliament (MPs)	Longitudinal	UK	Working hours reform and the expenses crisis	- Psychological strain - Experience of job performance -Work-life balance	Psychological symptoms (GHQ) -Physical symptoms (OSI)
5	Weiss & Suss	2017	Helping professionals (welfare) and non-helping professionals	Cross-sectional	German	Effort-reward imbalance	Psychological strain	Depression
6	Liu et al.	2019	Medical and non-medical staff	Cross-sectional	China	Longer work hours Less social support	Psychological strain	Value strain, aspiration strain, relative deprivation strain, and coping strain.

7	Zhang et al.	2021	Enterprise Chinese employees who use WeChat at work	Cross-sectional	China	Excessive Use of WeChat	- Creativity - Psychological strain (mediator)	Unidimensional Strain measure
8	Bakker et al.	2021	A bachelor of nursing programme of a University of Applied Sciences	Prospective cohort study	Netherlands	Psychosocial work characteristics (psychological demands, supervisor and co-worker support, and acts of offensive behaviour)	-Distress - Intention to leave	Non-specific distress (Distress Screener)
9	Bomhof-Roordink, et al.,	2015	Participant of the Netherlands Study of Depression and Anxiety, aged 20-66 years, with or without depressive and anxiety disorders.	Longitudinal	Netherlands	Childhood trauma Recent life stress	Depression Anxiety	Depression and anxiety symptom
10	Bianchi & Schonfeld	2020	Employed individual in the US, New Zealand, and France	Cross-sectional	US, New Zealand, and France	Severity of work-attributed depressive symptoms	Job-ascribed depression	Depressive symptoms
11	Fernandez-Castro, et al.,	2017	Hospital ward nurse	Longitudinal	Spain	Perceptions of demand, control, effort, reward and emotional exhaustion level	Psychological Effect	Hedonic tone and fatigue
12	Garcia et al.	2018	Mental health providers working in veterans Health Administration	Cross-sectional	Texas, US	Perception of political Bureaucratic oversight	Occupational burnout	Exhaustion, cynicism, and professional efficacy
13	Mayerl et al.	2021	Employed individuals	Cross-sectional	European	Effort-reward	Mental Health	Depressive symptoms

			aged 50 years or older		country s	imbalance (ERI) model (high effort and low rewards)		
1 4	Prem et al.	201 6	Eldercare worker	Cross- sectional	Australia	Regulatory job (time pressure, planning and decision making, emotional dissonance , self control effort)	Psychological strain	Ego depletion

Results and Discussions

Time distribution of work stress and psychological strain articles

According to the reviews, there are ten articles published in the last five years. In recent years, the study of work stress and psychological strain has gained importance in both science and social science. The table below shows the number of articles published from 2015 until 2021 (July).

Table 4

Publication by Years

Year	No. of Articles
2015	3
2016	1
2017	2
2018	1
2019	2
2020	1
2021	4

Distribution of Publications across Different Countries

The research on work stress and psychological strain is being carried out in different countries, and from this review, it can be concluded that half of the studies on the impact of work stress on employees' psychological strain were conducted in European countries. The remainings are from the US and Australia. In contrast, Asia constitutes about 16% of the studies, implying the need to conduct relevant studies in this region, particularly Malaysia.

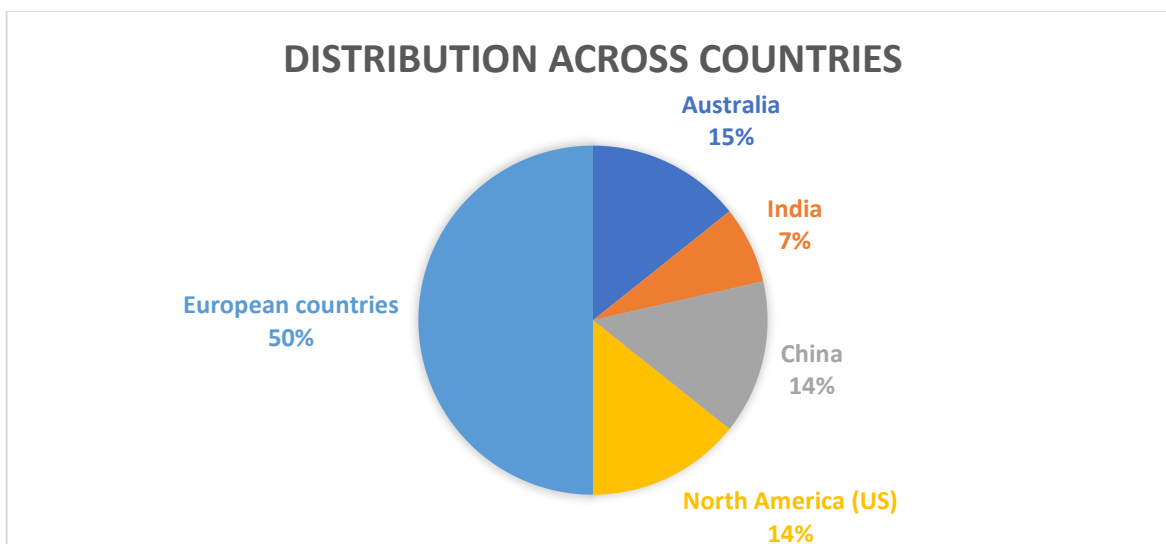


Figure 1. Distribution across countries

Major Work Stressors

Recent works of the literature suggest numerous factors which are constituted of work stressors (Figure 2). Of all, the stressors can be classified into two main themes, which are work characteristics and psychosocial work characteristics. Work characteristics stressors include job demands, job control and job support (Brough & Boase, 2019), self-control demands (Rivkin, Diestel, & Schmidt, 2015; Prem et al. 2016), working hours reform (Weinberg, 2015), effort-reward imbalance (Weiss & Suss, 2017; Mayerl et al. 2021), longer work hours (Liu et al. 2019), excessive use of WeChat at workplace (Zhang et al. 2021), psychological demands (Bakker et al. 2021), the severity of work (Bianchi & Schonfeld, 2020), perceptions of demand, control, effort, reward and emotional exhaustion level (Fernandez-Castro et al., 2017) as well as emotional dissonance (Prem et al. 2016). While psychosocial work characteristics were reported as less social support (Liu et al. 2019), less supervisor and co-worker support, and acts of offensive behaviour (Bakker et al. 2021), perception of political bureaucratic control (Garcia et al. 2018), a regulatory job that refers to time pressure, planning and decision making (Prem et al. 2016) and performance appraisal (PA) context (Dhiman, 2021). These are the collective work stressors that empirically led to psychological strain, which organizations may look into in minimizing the impact of workplace stress.

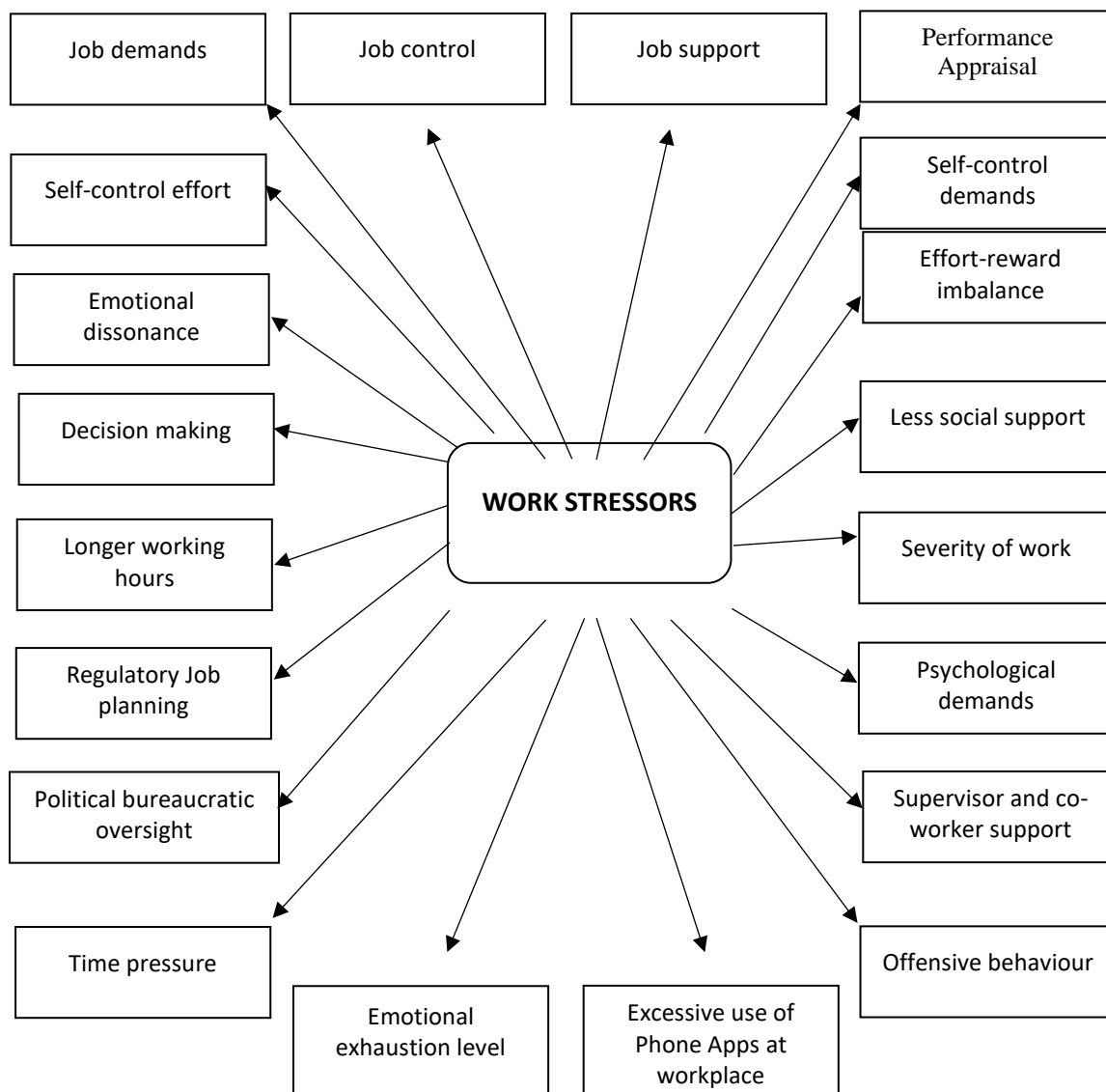


Figure 2. Identified work stressors

Dimensions of Psychological Strain

As shown in Table 3, this study summarized that the psychological strains have multifold dimensions, which consist of psychological symptoms (Brough & Boase, 2019; Weinberg, 2015), anxiety and dissatisfaction (Dhiman, 2021; Bomhof-Roordink et al., 2015), ego depletion, need for recovery, burnout which covers emotional exhaustion and depersonalization (Rivkin, Diestel, & Schmidt, 2015; Prem et al., 2016), physical symptoms (Weinberg, 2015), depression (Weiss & Suss, 2017; Bomhof-Roordink et al., 2015; Bianchi & Schonfeld, 2020; Mayerl et al., 2021), value strain, aspiration strain, relative deprivation strain and coping strain (Liu et al., 2019), distress screener (Bakker et al., 2021), hedonic tone and fatigue (Fernandez-Castro et al., 2017) and exhaustion, cynicism, and professional efficacy (Garcia et al., 2018). In summary, the psychological strain is measured by almost twenty different dimensions in the past seven years of studies with different study populations in different countries. This implies that the measurement of psychological strain can be expanded to various dimensions that best explain the consequences of work stressors. The plausible explanation lies in the different study settings, the heterogeneity of the professions

and also in the prediction variables that influence the diverse dimensions of psychological strain. The following figure presents the consequences of work stress which has been categorized as dimensions of psychological strain:

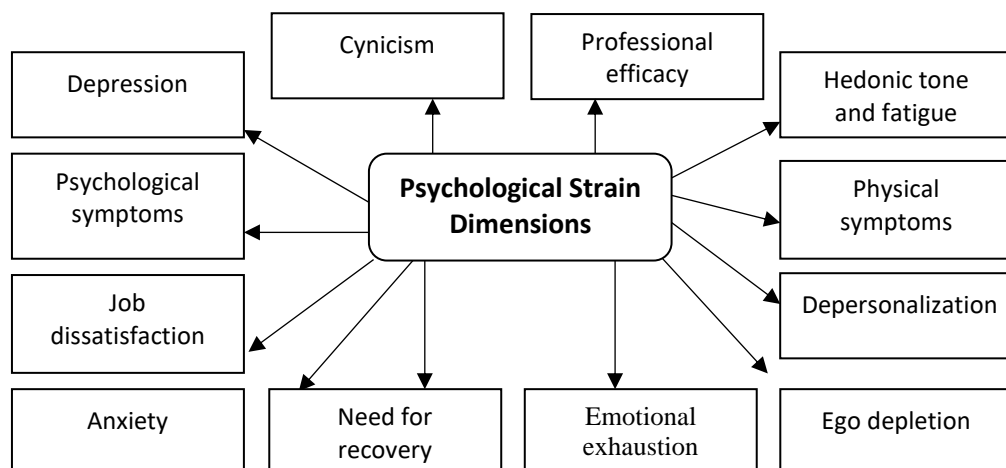


Figure 3. Dimensions of Psychological Strain

Limitations and Recommendations

This review paper includes the research papers gathered from Science Direct and Scopus databases only. There is a probability that some articles may have been left out due to the accessibility of the journals. The sources such as reports published by the government and other firms, eBooks, conference proceedings, and dissertations were not included. In addition, these articles searched are focusing only on work stress and the outcome of psychological strain that may neglect the other consequences of work stress. Therefore the future study is suggested to investigate the other potential outcome of work stressors, such as health outcomes which can be measured quantitatively by assessing employees' disease symptoms via physical health scale. The study shows that though various work stressors and their impact on psychological strain have been identified, few sectors are working on making a stress-free environment. Future research can focus on designing an organizational framework that should be in accordance with the developmental aspects and should provide a conducive environment to the employees, which reduces stress. Research suggests that stress management workshops should be conducted on a regular basis which can educate workers about the source of stress and its harmful consequences on their health and how they can reduce stress effectively. In addition, it should be backed by practical stress reduction techniques that employees can use on and off the job.

Contributions and Conclusion

The present paper focused on the field of work stress providing the concept and basic understanding of work stress through the literature review. The paper also offers in-depth knowledge about the research conducted in work stress in different countries and different sectors in the last seven years. In a nutshell, basic knowledge and understanding of work stress and the dimensions of psychological strain can be drawn from the empirical evidence of the research articles on work stress. This study contributes to the progression of research in human resource management by providing reviews on a multidimensional measure of workplace stress and psychological strain. Besides, the current study provides the theoretical groundwork for occupational stress research by exploring the individual and environmental

factors of work stress and its outcomes. The study highlights the importance of understanding contextual factors to assess employees' stress levels. In addition, this study can be applied by the industry to evaluate work-related stress levels by considering the impact of work stress on psychological strain perspective as well as establishing an effective employee stress management guideline. In summary, most of the studies applied cross-sectional research design compared to longitudinal studies. The articles have been contributed by the different countries across the globe, with European countries has contributed the highest number of articles. A large number of study has been conducted on work stress, but little is done to reduce it. It has been observed that proper copings mechanism and tools are not being used to reduce stress. These studies show that the impact of work stress not only affects the physical and psychological state but also affects the employee's job dissatisfaction, performance, and productivity. Overall, this study concluded that work stress had an adverse impact on diverse subdimensions of psychological strain.

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References

- Abdou, R., Cassells, D., Berrill, J. & Hanly, J. (2020). An empirical investigation of the relationship between business performance and suicide in the US. *Social Science & Medicine* 264. 113256
- Beehr, T. (1995). *Psychological stress in the workplace*. New York: Routledge.
- Bhagat, R., Krishnan, B., Nelson, T., Leonard, K., Ford, Jr, D., & Billing, T. (2010). Organizational stress, psychological strain, and work outcomes in six national contexts: A closer look at the moderating influences of coping styles and decision latitude. *Cross Cultural Management: An International Journal* Vol.17, No.1, 10-29.
- Bianchi, R., & Schonfeld, I. S. (2020). The Occupational Depression Inventory: A new tool for clinicians and epidemiologists. *Journal of Psychosomatic Research* 138. 110249
- Brough, P., & Boase, A. (2019). Occupational stress management in the legal profession: Development, validation, and assessment of a stress-management instrument. *Aust J Psychol*;1–12.
- Chen, J., & Silverthorne, C. (2008). The impact of locus of control on job stress, job performance and job satisfaction in Taiwan. *Leadership & Organization Development Journal*, 29 (7), 572-582.
- Cooper, C. L. (1983). Identifying Stressors at Work: Recent Research Developments. *Journal of Psychosomatic Research*, Vol.27, No. 5, pp. 369-376.
- Department of Statistics Malaysia. (2020). *Labour Force, Malaysia*. April 2020.
- Dhiman, A. (2021). Unique nature of appraisal politics as a work stress: test of stress-strain model from appraisee's perspective. *Personnel Review* Vol. 50 No. 1, pp. 64-89
- Fernández-Castroa, J., Martínez-Zaragozab, F., Roviraa, T., & Edo, S. (2017). How does emotional exhaustion influence work stress? Relationships between stressor appraisals, hedonic tone, and fatigue in nurses' daily tasks: A longitudinal cohort study. *International Journal of Nursing Studies* 75. 43–50.
- Garcia, H., Benzer, J., Haro, E., & Finley, E. (2018). Occupational burnout among PTSD specialty clinic providers in the Veterans Health Administration: Perceptions of bureaucratic and political oversight. *mental Health & Prevention*, 42-49.

- Genaidy, A., Salem, S., Karwowski, W., Paez, O., & Tuncel, S. (2007). The work compatibility improvement framework: an integrated perspective of the human-at-work system, *Ergonomics*, 50:1, 3-25, DOI: 10.1080/00140130600900431
- Health and Productivity. (2017) "Self-tracking technologies in the workplace: Quantifying health, behavior and productivity", *Human Resource Management International Digest*, Vol. 25 Issue: 5, pp.10-12, <https://doi.org/10.1108/HRMID-05-2017-0081>.
- Holmlund-Rytönen, M., & Strandvik, T. (2005). Stress in business relationships. *Journal of Business & Industrial Marketing*, 12-22.
- Lee, R., & Ashforth, B. (1996). A meta analytic examination of the correlates of the three dimensions of job burnout. *Journal of Applied Psychology*, 123-133.
- Liu, Y., Zhang, J., Hennessy, D., Zhao, S., & Ji, H. (2019). Psychological strains, depressive symptoms, and suicidal ideation among medical and non-medical staff in urban China. *Journal of Affective Disorders*, 22-27.
- Mahipalan, M., & Sheena S. (2019). Workplace spirituality, psychological well-being and mediating role of subjective stress: A case of secondary school teachers in India. *International Journal of Ethics and Systems*. 35 (4). pp. 725-739.
- Mayerl, H., Stolz, E., Kowatz, U., & Freidl, W. (2021). Within and between-person effects in the relationship between effort-reward imbalance and depressive symptoms. *Advances in Life Course Research*, 1-9.
- Prem, R., Kubicek, B., Diestel, S., & Korunka, C. (2016). Regulatory job stressors and their within-person relationships with ego depletion: The roles of state anxiety, self-control effort, and job autonomy. *Journal of Vocational Behavior*, 22-32.
- Rivkin, W., Diestel, S., & Schmidt, K.-H. (2015). Psychological detachment: A moderator in the relationship of self-control demands and job strain. *European Journal of Work and Organizational Psychology* Vol.24, No.3, 376-388.
- Sattler, M., Farber, T., Trausnig, K., Koberl, G., Paier, C., Dietz, P., & Poppel, M. (2020). Cross-sectional association between active commuting and perceived commuting stress in Austrian adults: Results from the HOTway study. *Mental Health and Physical Activity*, 1-7.
- Sharma, L., & Srivastava, M. (2020). A scale to measure organizational stress among women workers in the garment industry. *European Journal of Training and Development*. DOI 10.1108/EJTD-04-2019-0060
- Siegrist, J. (2015). Stress at Work. *International Encyclopedia of the Social & Behavioral Sciences*, 2nd edition. 23. 546-550.
- Weinberg, A. (2015). A longitudinal study of the impact of changes in the job and the expenses scandal on UK National Politicians' experiences of work, stress and the home: work interface. *Parliamentary Affairs*, 248-271.
- Weiss, E.-E., & Suss, S. (2017). Protective faith? The role of religiosity in the stressor-strain relationship in helping professions. *The International Journal of Human Resource Management*, 1-28.
- World Health Organization. (2020). Occupational health: Stress at the workplace. Q&A Detail.
- Yan, H., & Xie, S. (2016). How does auditors' work stress affect audit quality? Empirical evidence from the Chinese stock market. *China Journal of Accounting Research*, 9(4), 30
- Yao, C., Thorn, K., Duan, Z., & Taskin, N. (2015). Workplace stress in a foreign environment: Chinese migrants in New Zealand. *Equality, Diversity and Inclusion: An International Journal*. 34 (7), pp. 608-621

Zhang, H., Wang, M., Li M., & Chen, X. (2021). Excessive Use of WeChat at Work Promotes Creativity: The Role of Knowledge Sharing, Psychological Strain. *Front. Psychol.* 12:571338. doi: 10.3389/fpsyg.2021.571338