

Relationship between Job Stress and Work Outcomes among Health Workers

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Abstract: *This study evaluated the relationship between job stress and work outcomes among health workers in Bauchi State. The study adopted the cross-sectional survey in its investigation of the variables. Primary source of data was generated through self-administered questionnaire. The target population of this study comprised of 768 health workers (doctors, nurses and lab scientists) serving in Abubakar Tafawa Balewa University Teaching Hospital Bauchi and Bauchi State Specialist hospital, from which 260 individuals were chosen as samples utilizing the Krejcie and Morgan (1970) table. The study adopted the simple random sampling technique as it grants each respondents equal opportunities to be selected. The research instrument was validated through supervisor's vetting and approval while the reliability of the instrument was achieved by the use of the Cronbach Alpha coefficient with all the items scoring above 0.70. Data generated were analyzed and presented using both descriptive and inferential statistical techniques. The hypothesis was tested using the Spearman's Rank Order Correlation Statistics. Findings from the data analysis revealed that job stress positively and significantly related with work outcomes of health workers in Bauchi state. The result of the findings recommends that effective job design should be put in place to ensure a hitch free working experience. This goes to say that a healthy working environment should be provided by the Government for better service delivery.*

Keywords: *Job Stress and Work Outcomes*

INTRODUCTION

Work outcomes are those that impact the organization more than the individual (Akram, Lei, Haider, & Hussain, 2020). Previously, researchers Brady, Credé, Harms, Bachrach, and Lester, (2019), have found work outcomes to have significant relationships to role stressors. Whereas, other work outcomes (e.g., performance and emotional exhaustion) either have not been found to have significant relationships with role stressors or do not have as strong of a relationship (Liu, Zhang, Garcia-Barrera & Rhodes, 2021).

For the last few years, job stress is considered as a critical problem in the developed and developing countries due to its adverse effects on individuals and organizations (Hongchao, Shaoping, Larry, Dooley & Congying, 2020). In work settings, stressful situations are always expected which can affect the employees' physical condition and competence. This condition, ultimately negatively affects the employees' attitude and working behavior (Liang, Lin & Wu,

2018). Research studies have also confirmed the unpleasant working conditions results in psychological and physical health and employee attitude and behavior (Kimberly, French, Tammy, Allen, Tyler & Henderson, 2019). Stress has positive and negative results with strain. Due to inconsistent results, stress has been acknowledging as 'good' or 'bad' in terms of relation with performance (Mazzola & Disselhorst, 2019). In this regard, based on the Lazarus and Folkman stress theory, Cavanaugh, Boswell, Roehling & Boudreau recognized stressors as challenge and hindrance stressors. According to Giorgi, Arcangeli, Ariza-Montes, Rapisarda and Mucci, (2019), there are work stressors that exist in the workplace usually job stressors. Job stressors refer to job demands such as workload, time urgency, job responsibility, and job complexity that are viewed by employees as rewarding work experiences that create opportunities for personal growth.

Job stress can be defined as an individual's response to external stimuli in the environment. Recent studies have indicated that job stress has a major effect on individual physiology, psychology, and behavior e.g., job performance (French, Allen & Henderson, 2019). However, previous studies have mostly focused on the negative effects of job stress on performance, which argue that higher pressures can make individuals perform less effectively on tasks that call for tolerance and concentration, subsequently resulting in lower productivity and job quality (Deng, Ma, Yang & Tian, 2019). Following the development of positive psychology, Li indicates that job stress can be divided into two dimensions: hindrance stress and job stress (Li, Zhang, Li & Lu, 2021).

Job stress refers to the job stress that individuals feel that they can overcome and that benefits their career development, such as job load, job responsibility, and time urgency. Therefore, this study examines the impact of job stress on job performance among healthcare workers in hospitals, which responds to the call for more studies on different types of job stress (Bhattacharya, Camacho, Kimberly & Lukens, 2019) and provides empirical evidence of the differences in the effects of these stresses on job performance.

Several studies have found that healthcare workers are the key to improving public service quality. However, they generally suffer from high levels of job stress and this is likely to inhibit their Public service motivation and then leads to poor job (Deng, Guo, Ma, Yang & Tian, 2019). Although reasons for the interest in the topic of work stress vary, it is obvious that one important reason is that employees in the workplace are experiencing increased amounts of stress. For example, surveys conducted over the last four decades indicate that half to three-quarters of today's workforce describe their work as very stressful and that employees generally perceive their stress levels to be much greater than what they experienced 5 to 10 years ago (Arnetz, Goetz, Arnetz & Arble, 2020).

Indeed, constantly increasing levels of work-related stress have made this generation of employees more stressed than their predecessors, to the extent that some have labeled this trend an epidemic (Deng, Liu, Guo, Gao, Wu & Yang, 2021). Unfortunately, in a work environment characterized by increasing workloads, broadened job scopes, limited economic resources, and corporate downsizing there is an expectation that this trend will continue in the future. Absenteeism among health workers, leading to insufficient staffing levels, increased organizational costs and poor quality of care (Chelladurai & Kim, 2022). Previous studies have shown that job stress can indirectly affect job performance through mediator variables. Job satisfaction is mainly considered as the mediator.

Work stressors are damaging to worker health and well-being. This assertion is supported by decades of research and founded upon several theoretical perspectives (Stiglbauer, & Kovacs, 2018). According to Selye and Gabbiani, (2019), stress is the state manifested by a specific syndrome which consist of all the nonspecifically-induced changes within a biological system. Seyle pointed that both eustress and distress can arouse nonspecific responses, but eustress causes much less damage than distress. According to the appraisal theory of Lazarus, (2021), secondary appraisal activity is a crucial feature of every stressful encounter because the outcome depends on what can be done.

Too much stress contributes to serious psychological disorders such as job burnout, anger, frustration, anxiety, depression, and nervousness (Rothbaum, 2021), as well as physical health issues such as headache, dizziness, neck pain, and sleeping problems (Brady, Credé, Harms, Bachrach & Lester, 2019). In Spain, scholars have revealed that stressors perceived by school teachers hamper them from fully meeting learning objectives and cause burnout, anxiety, and depression (Giorgi, Leon-Perez, Pignata, Topa & Mucci, 2020). Particularly, work-related stress was associated with teachers' engagement and occupational well-being (Pöysä, Pakarinen & Lerkkanen, 2021).

However, previous studies have mostly focused on the negative effects of job stress on performance, which argue that higher pressures, work overload, scope of responsibilities can make individuals perform less effectively on tasks that call for tolerance and concentration, subsequently resulting in lower productivity and job quality (Abbas & Raja, 2022). It has also been found that when individuals are exposed to higher pressures, they will become less sensitive to others which is manifested in a decrease of helping and an increase in aggression (Deng, Guo, Ma, Yang & Tian, 2019). Based on this premise, the present study aims to examine the relationship between job stress and work outcomes of healthcare workers in Bauchi State.

The study would provide answer to the following research question:

- i. What is the relationship Job Stress and Work Outcomes among Health Workers in Bauchi State?

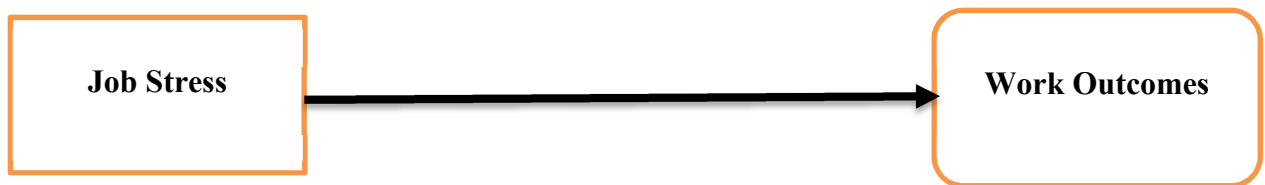


Figure 1: *Conceptual Framework Showing relationship between study variables*

LITERATURE REVIEW

Theoretical framework

The Transactional Model of Stress

The Transactional Model of stress forwards that stressors (defined as stimuli in the environment that can be perceived as demands, constraints, or opportunities) can cause strains when they are

appraised as a threat and when coping resources are not available to mitigate the negative consequences of the stressors (Lazarus & Folkman, 1984). Thus, strains are expected to increase when a stressor is appraised as a hindrance. Likewise, the appraisal of a stressor as a challenge is expected to mitigate the deleterious consequences.

A stressor appraised high on hindrance will have the strongest positive relationship with strains, particularly when the appraisal of the stressor as a challenge is low (Podsakoff, LePine & LePine, 2007). For this reason, this study specifically looks at both a two-way interaction of the moderating effect of stressor appraisal (hindrance or challenge) on the relationship between perceived role stressors (e.g., role ambiguity, role conflict, and role overload) and strains (e.g., anxiety, tedium, general well-being, lack of organizational commitment, turnover intentions, and job satisfaction). It also examines the three-way interaction of hindrance appraisal and challenge appraisal of role stressors on strains. Taking into consideration Hollebeek and Haar (2012) findings, stronger deleterious outcomes (such as higher anxiety, lower organizational commitment, and higher turnover intentions) are expected when job stressors are appraised as low and hindrance stressors are appraised as high than when job stressors are appraised as high and hindrance stressors appraised as low or when they are appraised the same. Therefore, the assumption is that participants' appraisal of a stressor as a hindrance will mitigate the ameliorative effects that the appraisal of the same stressor as a challenge would otherwise have on strains (Shinn, Rosario, Mørch & Chestnut, 1984).

Concept of Work Outcomes

Work outcomes are those that impact the organization more than the individual (Walk & Handy, 2018). The work outcomes addressed in the current study are organizational commitment, turnover intentions, and job satisfaction. Previously, researchers (Brady, Credé, Harms, Bachrach & Lester, 2019), have found these work outcomes to have significant relationships to role stressors. Whereas, other work outcomes (e.g., performance and emotional exhaustion) either have not been found to have significant relationships with role stressors or do not have as strong of a relationship (Harmsen, Helms-Lorenz, Maulana & van Veen, 2018).

This is a framework for understanding, describing, and performing your job duties, roles, and responsibilities (Sternberg, Wagner & Okagaki, 2018). You can use this as a template to create a useful job description that you would actually use while you are in a job. It divides a job into three categories: activities, outputs, and outcomes. To be successful in your job, it is useful to understand the difference between these, and to achieve an optimal balance spending appropriate time and energy on each (Brown, 2020).

Concept of Job Stress

In today's fast paced world, it is impossible to live without stress (Priya, Garg & Tigga, 2020). The nature of work has undergone drastic changes with stress appearing almost automatically. It is a worldwide phenomenon that occurs in various forms in every workplace. In today's work life, employees are often required to work strenuously for over long period of time as their responsibilities keep rising (Svinndal, Jensen & Rise, 2020). Stress is common in every type of job and people must face it in every facet of life. Stress have been defined in various ways over

the years. According to Ivancevich, Konapske and Matteson, (2006), stress is scientifically described as that response of an individual to the outcomes of the external environmental conditions that place excessive psychological, behavioural, and physiological pressures on that individual. It involves how an individual respond to external pressures. Ehsan and Ali, (2019) defined as a dynamic condition in which an individual is confronted with an opportunity, constraints, or demand related to what he or she desires and for which the outcome is perceived to be both uncertain and important.

The World Health organisation (WHO) defines occupational 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. According to Fonkeng, (2018), stress is simply a reaction of an employee when certain demands, pressures and professional aspects which are to be faced at the work place do not match their knowledge levels which create or poses a challenge and threat to the capabilities of the employee which in turn would create a struggle for existence in terms of being employed in a place. This therefore implies that, stress exists when an environmental situation presents a demand threatening to surpass an employee's capabilities and resources (Daniel, 2019). From the descriptions, it can therefore be contending that stress is an excessive demand that affect a person physically and psychologically. It has become a common experience among employees as they perform their day-to-day jobs.

Many researchers aver that stress at work place has an impact to performance in one way or the other. According to Fonkeng, (2018), job stress makes the organisational performance go down. It is likened to a chronic disease that is caused by conditions in the workplace that negatively affect an employee's performance (Darvishmotevali & Ali, 2020). It is normal experience that occurs in reaction to situations that make an employee uncomfortable and on the other hand it may help one to rise above challenges. If that is the case, it will have a positive impact as it can enable an employee to improve on their performance which will result in increased employee motivation at work, innovation and problem-solving. According to Adom, Chukwuere and Osei, (2020), good stress which is scientifically referred to as eustress is a positive result of stressful occurrences which creates motivation in people who in turn rise beyond their challenges that they may face to succeed in life. However, stress can be managed up to certain extent after which it becomes negative and negatively affect the employee's performance. Similarly, Oludayo, Falola, Obianuju and Demilade, (2018), explained the importance of job stress as emphasized by employers on how to manage and reduce it through practical guidelines. Among this includes balancing of work life, fair work load, open communication and providing a conducive working environment. Its however necessary for management to monitor employees' stress level because an overly stressed employee will certainly not perform well at work (Fonkeng, 2018).

This is especially so in a microfinance institution in Cameroon where employees have direct contact with customers as the stress will act out on their frustrations with customers, thus ruining the image of the organisation.

Relationship between Job Stress and Work Conditions

A recent Meta– analysis found that hindrance stressors (organizational politics, red tape, role ambiguity, and in general those demands unnecessarily thwarting personal growth and goal attainment) had a negative effect on organizational performance (Webster & Adams, 2020). On the other hand, so called job stressors (high workload, time pressure, high responsibility and in general those demands that viewed as obstacles to be overcome in order to learn and achieve)

were found to have effect on motivation and performance. Mujika, Halson, Burke, Balagué and Farrow, (2018), indicate that stress leads to improved performance up to an optimum point. Beyond the optimum point, further stress and arousal have detrimental effect on performance. Therefore, healthy amounts of eustress are desirable to improve performance by arousing a person to action. It is in the midrange of the curve that the greatest performance benefits from stress are achieved.

Workers are increasingly exposed to stressful work environments as a result of changing work expectations including tighter deadlines, constant and almost instantaneous communication and increased production targets set with seemingly little consideration for individual workload (Virine & Trumper, 2019). Recently, this has been played out within a context of often unstable and shrinking resources as companies restructure (Cohen, Hunter & O'Donnell, 2019). Approximately, 31% of the Canadian labor force experiences chronic work stress either alone or in combination with chronic physical condition and/or a psychiatric disorder (Dobson, Vigod, Mustard & Smith, 2020). Since the groundbreaking work by Chase-Dunn and Almeida, (2020), co-pious studies have reported links among job characteristics and job strain as well as mental health problems. In addition, evidence is mounting, regarding the negative impact of work stress on physical health (Talevi, Soccì, Carai, Carnaghi, Faleri, Trebbi & Pacitti, 2020). Moreover, the presence of chronic work stress seems to amplify effects of psychiatric disorders and chronic physical conditions on disability (Hamouche, 2020).

Higher odds of chronic work stress are associated with particular job characteristics (Vander, Molen, Nieuwenhuijsen, Frings-Dresen & Groene, 2021). For example, greater autonomy relative to psychological demand and greater skill discretion are related to greater likelihood of reporting chronic work stress whereas greater social support at work is associated with lower odds of reporting chronic work stress (Fleischmann, Carr, Stansfeld, Xue & Head, 2018). Even after controlling for the contributions of job characteristics, certain occupations are also associated with chronic job stress (Li, Chen, Tuckey, McLinton & Dollard, 2019). However, results in the literature are not consistent regarding the occupations that are most exposed to job strain (Miranti & Li, 2020). However, it has been suggested that some of the differences could also be related to differences in commitment to the organization (Ćulibrk, Delić, Mitrović & Ćulibrk, 2018). Job characteristics also appear to have different impacts on men and women. For example, there is a large proportion of men with depression who have high job strain whereas there is a large proportion of women with depression who have low social support in the workplace (Miranti & Li, 2020). Long working hours are associated with depression in women. According to Holmberg, Caro and Sobis, (2018), there is also a significant body of work examining the relationship between work satisfaction and mental health status. A recent meta-analysis based on 500 reported studies found a strong correlation between job satisfaction and mental health status (Weber, Unterrainer & Höge, 2020). (Allan, Batz-Barbarich, Sterling and Tay, (2019) note that occupational stress occurs when external demands and conditions do not match a person's needs, expectations or ideas or exceed their physical capacity, skills, or knowledge for comfortably handling a situation." This suggests that two immediate sources of stress for workers are their working conditions and themselves. But, rather than two distinct entities, Stich, Tarafdar, Stacey & Cooper, 2019) indicate that stress is also related to the interface between the organization and the individual including considerations regarding person-environment fit and expectations. They go on to suggest that the most effective interventions

address both the person and the environment. However, there have been few studies examining the relationship between perceived responsibilities by workers and job characteristics and experiences of stress (Wegman, Hoffman, Carter, Twenge & Guenole, 2018). Yet, this type of information is essential to developing effective interventions that target both the person and the environment.

The study was guided by the following hypothesis

Ho₁: There is no significant relationship between job stress and work outcomes among Health Workers in Bauchi State

METHODOLOGY

The cross-sectional survey approach was used to collect data for the study.

The target population of this study comprised of 768 health workers (doctors, nurses and lab scientists) serving in Abubakar Tafawa Balewa University Teaching Hospital Bauchi and Bauchi State Specialist hospital, from which 260 individuals were chosen as samples utilizing the Krejcie and Morgan (1970) table. The study adopted the simple random sampling technique as it grants each respondents equal opportunities to be selected. With the help of the SPSS Package version 23, descriptive statistics and Spearman's rank order correlation were employed for data analysis and hypothesis testing.

Table 1. Reliability Statistics for the Instruments

S/No	Dimensions/Measures of the study variable	Number of items	Number of cases	Cronbach's Alpha
1	Job Stress	4	243	0.789
2	Work Outcomes	4	243	0.836

Source: Research Data, 2022

All of the dimensions and measures in our study had significant reliability estimates greater than 0.7 Cronbach's Alpha.

DATA ANALYSIS AND RESULTS

Bivariate Analysis

The hypothesis test included the bivariate hypothesis Ho₁ which was expressed in the null form. To conduct the analysis, we used the Spearman Rank (rho) statistic. The 0.05 significance level is used as a threshold for the probability of either accepting or rejecting the null hypotheses at ($p > 0.05$).

Table 2: Correlation Matrix showing Relationship between Job Stress and Work Outcomes

			Job Stress	Work Outcomes
Spearman's rho	Job Stress	Correlation Coefficient	1.000	.857**
		Sig. (2-tailed)	.	.000
		N	243	243
	Work Outcomes	Correlation Coefficient	.857**	1.000
		Sig. (2-tailed)	.000	.
		N	243	243

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Research Data, 2022 (SPSS output, version 23.0)

The table above illustrates the test for the previously postulated bivariate hypothetical statements.

Ho₁: There is no significant relationship between job stress and work outcomes among Health Workers in Bauchi State

The correlation coefficient 0.857 shows that there is a strong and positive relationship between job stress and work outcomes. The p value $0.000 < 0.05$ indicates that the relationship is significant. Therefore, the null hypothesis is hereby rejected and the alternate upheld. Thus, there is a significant relationship between job stress and work outcomes among Health Workers in Bauchi State.

Discussion of Findings

Using the Spearman's rank order correlation tool and a 95% confidence interval, the data demonstrated a strong and positive significant relationship between job stress and work outcomes among Health Workers in Bauchi State. Our findings also have implications for stress measurement. We distinguished between type of stress by relying on the nature of the job demand with which the stress was associated. We then investigated whether reported levels of stress (associated with the specific job demands) differentially related to attachment-related outcomes. However, other research Johnson, Willis and Evans, (2019) has focused on experiencing stressors or job demands in the work environment (i.e., the source of stress) rather than the associated stress level. It was important for our purposes to focus on an individual's perceived level of stress since this appraisal is likely to be a motivating force for attitudes, retention, and withdrawal behavior (Sim & Lee, 2018). By focusing on stress experienced due to various job demands, we were able to demonstrate that one type of stress, specifically challenge stress, may have both beneficial (in terms of work outcomes) and deleterious (in terms of strain) effects while another, specifically hindrance stress, may have consistently undesirable effects (Altena, Baglioni, Espie, Ellis, Gavriloff, Holzinger & Riemann, 2020). Related, prior research has shown a curvilinear relation between challenge-related job demands (e.g., job complexity, scope) and measures of strain. More specifically, though these work characteristics are generally

linked to positive outcomes, there is evidence of increased strain at high levels of job scope, complexity, and the like (Wang, Johnson, Nguyen, Goodwin & Groth, 2020). We took a somewhat different approach, focusing on the experienced stress associated with challenging job demands, and found that this stress relates positively to strain (even at moderate levels) despite its positive association with attachment-related variables. Yet, consistent with the above research, we might expect a deleterious effect on attachment variables at high levels of challenge-related stress. Post hoc analysis of our data did not find this curvilinear relation, again supporting the distinction between experiencing stressors and experiencing stress (Wadey, Evans, Hanton, Sarkar & Oliver, 2019). Future research could include measures of both job demands and stress levels, investigating the process by which demands influence reported stress levels, why employees vary in their perceptions, and how these factors influence work outcomes. Another implication for stress measurement is the suppression effect found in McKay, Przybysz, Cavanaugh, Horvath, Giorgianni and Czajka, (2021) and in the present study. This finding indicates that unless the variance common to experiencing stress more generally is controlled, the relation between challenge-related stress and desirable work outcomes may not be identified. This also suggests, however, that the benefit of challenge-related stress is not absolute. Indeed, challenge-related stress may have associated frustration or disruption, as evidenced by the positive correlation between the two types of stress (Mansell, 2021).

CONCLUSIONS AND RECOMMENDATION

The objective of the study was to examine the relationship between the job stress and work outcomes of health workers, the study hypothesized that the variables have no significant effect on the health workers level of commitment. Furthermore, this study explored some challenges facing health workers in hospitals in Bauchi in the course of providing their services to their clients.

Generally, the study collaborated the frequently revealed negative effects of job stress and the study found a significant relationship with work outcomes. The study reveals that health workers do stressful jobs due to stressors like long working hour, workload, deadline, management pressure etc. has been positive related to work outcomes of health workers. It also statistically proved that health workers well-being is psychologically and physically depressed if stress prolong over a long period of time.

The study thus recommends that:

- i. Effective job design should be put in place to ensure a hitch free working experience. This goes to say that a healthy working environment should be provided by the Government for better service delivery.

REFERENCE

Abbas, M., & Raja, U. (2022). Challenge-hindrance stressors and job outcomes: The moderating role of conscientiousness. In *Key Topics in Work and Organizational Psychology* (pp. 41-53). Springer, Cham.

- Adom, D., Chukwuere, J., & Osei, M. (2020). Academic Stress among Faculty and Students in Higher Institutions. *Pertanika Journal of Social Sciences & Humanities*, 28(2).
- Akram, T., Lei, S., Haider, M. J., & Hussain, S. T. (2020). The impact of organizational justice on employee innovative work behavior: Mediating role of knowledge sharing. *Journal of Innovation & Knowledge*, 5(2), 117-129.
- Allan, B. A., Batz-Barbarich, C., Sterling, H. M., & Tay, L. (2019). Outcomes of meaningful work: A meta-analysis. *Journal of management studies*, 56(3), 500-528.
- Altena, E., Baglioni, C., Espie, C. A., Ellis, J., Gavrilloff, D., Holzinger, B., ... & Riemann, D. (2020). Dealing with sleep problems during home confinement due to the COVID-19 outbreak: Practical recommendations from a task force of the European CBT-I Academy. *Journal of sleep research*, 29(4), e13052.
- Arnetz, J. E., Goetz, C. M., Arnetz, B. B., & Arble, E. (2020). Nurse reports of stressful situations during the COVID-19 pandemic: Qualitative analysis of survey responses. *International journal of environmental research and public health*, 17(21), 8126.
- Arthur Lazarus, M. B. A. (2021). Impact of Imposter Syndrome on Physicians' Practice and Leadership Development. *The Journal of Medical Practice Management: MPM*, 37(1), 367-372.
- Bhattacharya, A., Camacho, D., Kimberly, L. L., & Lukens, E. P. (2019). Women's experiences and perceptions of depression in India: A metaethnography. *Qualitative health research*, 29(1), 80-95.
- Brady, L. L., Credé, M., Harms, P. D., Bachrach, D. G., & Lester, P. B. (2019). Meta-analysis of risk factors for substance abuse in the US military. *Military Psychology*, 31(6), 450-461.
- Brown, M. G. (2020). *Keeping score: Using the right metrics to drive world-class performance*. Productivity Press.
- Byrd, J. C., Hillmen, P., Ghia, P., Kater, A. P., Chanan-Khan, A., Furman, R. R., ... & Jurczak, W. (2021). Acalabrutinib versus ibrutinib in previously treated chronic lymphocytic leukemia: results of the first randomized phase III trial. *Journal of clinical oncology*, 39(31), 3441-3452.
- Chase-Dunn, C., & Almeida, P. (2020). *Global Struggles and Social Change: From Prehistory to World Revolution in the Twenty-First Century*. Johns Hopkins University Press.
- Chelladurai, P., & Kim, A. C. H. (2022). *Human resource management in sport and recreation*. Human Kinetics.
- Cohen, N. S., Hunter, A., & O'Donnell, P. (2019). Bearing the burden of corporate restructuring: Job loss and precarious employment in Canadian journalism. *Journalism Practice*, 13(7), 817-833.
- Ćulibrk, J., Delić, M., Mitrović, S., & Ćulibrk, D. (2018). Job satisfaction, organizational commitment and job involvement: The mediating role of job involvement. *Frontiers in psychology*, 9, 132.

- Daniel, C. O. (2019). Effects of job stress on employee's performance. *International Journal of Business, Management and Social Research*, 6(02), 375-382.
- Darvishmotevali, M., & Ali, F. (2020). Job insecurity, subjective well-being and job performance: The moderating role of psychological capital. *International Journal of Hospitality Management*, 87, 102462.
- Deng, J., Guo, Y., Ma, T., Yang, T., & Tian, X. (2019). How job stress influences job performance among Chinese healthcare workers: a cross-sectional study. *Environmental health and preventive medicine*, 24(1), 1-11.
- Deng, J., Guo, Y., Ma, T., Yang, T., & Tian, X. (2019). How job stress influences job performance among Chinese healthcare workers: a cross-sectional study. *Environmental health and preventive medicine*, 24(1), 1-11.
- Dobson, K. G., Vigod, S. N., Mustard, C., & Smith, P. M. (2020). Trends in the prevalence of depression and anxiety disorders among working-age Canadian adults between 2000 and 2016. *Health Reports*, 31(12), 12-23.
- Ehsan, M., & Ali, K. (2019). The impact of work stress on employee productivity: Based in the banking sector of Faisalabad, Pakistan. *International Journal of Innovation and Economic Development*, 4(6), 32-50.
- Fleischmann, M., Carr, E., Stansfeld, S. A., Xue, B., & Head, J. (2018). Can favourable psychosocial working conditions in midlife moderate the risk of work exit for chronically ill workers? A 20-year follow-up of the Whitehall II study. *Occupational and Environmental Medicine*, 75(3), 183-190.
- Fonkeng, C. (2018). Effects of job-stress on employee performance in an enterprise: A microfinance institution in Cameroon.
- French, K. A., Allen, T. D., & Henderson, T. G. (2019). Challenge and hindrance stressors and metabolic risk factors. *Journal of Occupational Health Psychology*, 24(3), 307.
- Giorgi, G., Arcangeli, G., Ariza-Montes, A., Rapisarda, V., & Mucci, N. (2019). Work-related stress in the Italian banking population and its association with recovery experience. *International Journal of Occupational Medicine and Environmental Health*, 32(2), 255-265.
- Giorgi, G., Leon-Perez, J. M., Pignata, S., Topa, G., & Mucci, N. (2020). Addressing Risks: Mental Health, Work-Related Stress, and Occupational Disease Management to Enhance Well-Being 2019. *BioMed Research International*, 2020.
- Hamouche, S. (2020). COVID-19 and employees' mental health: stressors, moderators and agenda for organizational actions. *Emerald Open Research*, 2.
- Harmsen, R., Helms-Lorenz, M., Maulana, R., & Van Veen, K. (2018). The relationship between beginning teachers' stress causes, stress re

- Hollebeek, L. D., & Haar, J. M. (2012). Direct and interaction effects of challenge and hindrance stressors towards job outcomes. *New Zealand Journal of Employment Relations*, 37(2), 58-76.
- Holmberg, C., Caro, J., & Sobis, I. (2018). Job satisfaction among Swedish mental health nursing personnel: Revisiting the two-factor theory. *International journal of mental health nursing*, 27(2), 581-592.
- Johnson, S. J., Willis, S. M., & Evans, J. (2019). An examination of stressors, strain, and resilience in academic and non-academic UK university job roles. *International Journal of Stress Management*, 26(2), 162.
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer publishing company.
- Li, N., Zhang, L., Li, X., & Lu, Q. (2021). The influence of operating room nurses' job stress on burnout and organizational commitment: The moderating effect of over-commitment. *Journal of Advanced Nursing*, 77(4), 1772-1782.
- Li, Y., Chen, P. Y., Tuckey, M. R., McLinton, S. S., & Dollard, M. F. (2019). Prevention through job design: Identifying high-risk job characteristics associated with workplace bullying. *Journal of occupational health psychology*, 24(2), 297.
- Liang, L., Bin-Chia Wu, D., Aziz, M. I. A., Wong, R., Sim, D., Leong, K. T. G., ... & Ng, K. (2018). Cost-effectiveness of sacubitril/valsartan versus enalapril in patients with heart failure and reduced ejection fraction. *Journal of Medical Economics*, 21(2), 174-181.
- Liu, S., Lithopoulos, A., Zhang, C. Q., Garcia-Barrera, M. A., & Rhodes, R. E. (2021). Personality and perceived stress during COVID-19 pandemic: Testing the mediating role of perceived threat and efficacy. *Personality and Individual differences*, 168, 110351.
- Mansell, P. C. (2021). Stress mindset in athletes: Investigating the relationships between beliefs, challenge and threat with psychological wellbeing. *Psychology of Sport and Exercise*, 57, 102020.
- Mazzola, J. J., & Disselhorst, R. (2019). Should we be “challenging” employees?: A critical review and meta-analysis of the challenge-hindrance model of stress. *Journal of Organizational Behavior*, 40(8), 949-961.
- McKay, N., Przybysz, J., Cavanaugh, A., Horvatits, E., Giorgianni, N., & Czajka, K. (2021). The effect of unhealthy food and liking on stress reactivity. *Physiology & Behavior*, 229, 113216.
- Miranti, R., & Li, J. (2020). Working hours mismatch, job strain and mental health among mature age workers in Australia. *The Journal of the Economics of Ageing*, 15, 100227.
- Mujika, I., Halson, S., Burke, L. M., Balagué, G., & Farrow, D. (2018). An integrated, multifactorial approach to periodization for optimal performance in individual and team sports. *International journal of sports physiology and performance*, 13(5), 538-561.

- Oludayo, O. A., Falola, H. O., Obianuju, A., & Demilade, F. (2018). WORK-LIFE BALANCE INITIATIVE AS A PREDICTOR OF EMPLOYEES'BEHAVIOURAL OUTCOMES. *Academy of Strategic Management Journal*,17(1), 1-17.
- Podsakoff, N. P., LePine, J. A., & LePine, M. A. (2007). Differential challenge stressor-hindrance stressor relationships with job attitudes, turnover intentions, turnover, and withdrawal behavior: a meta-analysis. *Journal of applied psychology*, 92(2), 438.
- Pöysä, S., Pakarinen, E., & Lerkkanen, M. K. (2021, July). Patterns of teachers' occupational well-being during the COVID-19 pandemic: relations to experiences of exhaustion, recovery, and interactional styles of teaching. In *Frontiers in Education* (Vol. 6, p. 699785). Frontiers Media SA.
- Priya, A., Garg, S., & Tigga, N. P. (2020). Predicting anxiety, depression and stress in modern life using machine learning algorithms. *Procedia Computer Science*, 167, 1258-1267
- Selye, H., & Gabbiani, G. (2019). Fragen der Elektrolyte, des Stress und der Herznekrose. In *Ergänzungsband 1, Hälfte 1* (pp. 1-58). De Gruyter.
- Shinn, M., Rosario, M., Mørch, H., & Chestnut, D. E. (1984). Coping with job stress and burnout in the human services. *Journal of personality and social psychology*, 46(4), 864.
- Sim, Y., & Lee, E. S. (2018). Perceived underqualification and job attitudes: The role of transformational leadership. *Leadership & Organization Development Journal*.
- Sternberg, R. J., Wagner, R. K., & Okagaki, L. (2018). Practical intelligence: The nature and role of tacit knowledge in work and at school. In *Mechanisms of everyday cognition* (pp. 205-227). Psychology Press.
- Stich, J. F., Tarafdar, M., Stacey, P., & Cooper, S. C. (2019). Appraisal of email use as a source of workplace stress: A person-environment fit approach. *Journal of the Association for Information Systems*, 20(2), 2.
- Stiglbauer, B., & Kovacs, C. (2018). The more, the better? Curvilinear effects of job autonomy on well-being from vitamin model and PE-fit theory perspectives. *Journal of Occupational Health Psychology*, 23(4), 520.
- Svinndal, E. V., Jensen, C., & Rise, M. B. (2020). Working life trajectories with hearing impairment. *Disability and rehabilitation*, 42(2), 190-200..
- Talevi, D., Socci, V., Carai, M., Carnaghi, G., Faleri, S., Trebbi, E., ... & Pacitti, F. (2020). Mental health outcomes of the CoViD-19 pandemic. *Rivista di psichiatria*, 55(3), 137-144.
- Van der Molen, H., Nieuwenhuijsen, K., Frings-Dresen, M., & de Groene, G. (2021). O-74 Work-related psychosocial risk factors for stress-related disorders: a systematic review and meta-analysis.
- Virine, L., & Trumper, M. (2019). *Project decisions: The art and science*. Berrett-Koehler Publishers.

- Wadey, R., Evans, L., Hanton, S., Sarkar, M., & Oliver, H. (2019). Can preinjury adversity affect postinjury responses? A 5-year prospective, multi-study analysis. *Frontiers in Psychology, 10*, 1411.
- Walk, M., & Handy, F. (2018). Job crafting as reaction to organizational change. *The Journal of Applied Behavioral Science, 54*(3), 349-370.
- Wang, K. L., Johnson, A., Nguyen, H., Goodwin, R. E., & Groth, M. (2020). The changing value of skill utilisation: Interactions with job demands on job satisfaction and absenteeism. *Applied Psychology, 69*(1), 30-58.
- Weber, W. G., Unterrainer, C., & Höge, T. (2020). Psychological research on organisational democracy: A meta-analysis of individual, organisational, and societal outcomes. *Applied Psychology, 69*(3), 1009-1071.
- Webster, J. R., & Adams, G. A. (2020). The differential role of job demands in relation to nonwork domain outcomes based on the challenge-hindrance framework. *Work & Stress, 34*(1), 5-33.
- Wegman, L. A., Hoffman, B. J., Carter, N. T., Twenge, J. M., & Guenole, N. (2018). Placing job characteristics in context: Cross-temporal meta-analysis of changes in job characteristics since 1975. *Journal of Management, 44*(1), 352-386.
- Wu, H., Qiu, S., Dooley, L. M., & Ma, C. (2020). The relationship between challenge and hindrance stressors and emotional exhaustion: The moderating role of perceived servant leadership. *International Journal of Environmental Research and Public Health, 17*(1), 282.
- Yang, W., Zhang, F., Deng, H., Lin, L., Wang, S., Kang, F., ... & Chen, X. (2019). Smart nanovesicle-mediated immunogenic cell death through tumor microenvironment modulation for effective photodynamic immunotherapy. *ACS nano, 14*(1), 620-631.