
Challenging Job Demands as a Predictor of Work Engagement among Teachers: Role of Job Burnout

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Abstract

Teaching as a profession has been considered to involve a wide range of job-related demands which required high flexibility and multidimensional skills. Though the teacher's core business is to enhance the achievements and learning of students yet many other underrated tasks such as university administration and development, cooperation outside and within and the university are required from the teacher, which become potential stressors and consequently acknowledged as a crucial feature for their burnout and turnover. The current research aimed to investigate challenging job demands, work engagement and job burnout among purposively selected university teachers from Punjab Province, Pakistan. Challenging Job Demands (Makhdoom, 2017), Ultra-Short Measure for Work Engagement (Schaufeli et al., 2017) and Oldenburg Burnout Inventory (Demerouti et al., 2010) questionnaires were used to measure the variables of the present research. Results showed that challenging job demands had a positive predictive relationship with work engagement, which means that those teachers who perceive their job as challenging were more engaged in work. Mediation analysis through Process Macro (version 3.5) revealed job burnout

significantly and partially mediated between challenging job demands and work engagement. The current study concluded that challenging job demands were a strong and positive predictor of work engagement among teachers. However, the present study also concluded a significant and partial mediating role of job burnout in the relationship of challenging job demands and work engagement of teachers. The present study has some recommendations for future researchers.

Keywords: Challenging job demands, work engagement, job burnout.

Introduction

Demands related to one's work have long been exclusively linked with undesirable consequences, i.e., it increases frustration as well as anxiety (Ford et al., 2014). So, the pressure of time can be explained as "that individual perceives their time as not sufficient to complete a task and to complete the task one has to work more rapidly than routine" (Stiglbauer, 2018, p. 64) signifies a distinctive challenging job demand that established on its ambiguous influences (e.g. Prem et al., 2018; Widmer et al., 2012). Time pressure or pressure of time is a dimension of challenging job demand that has revealed significant positive relations to engagement in work and exhaustion (e.g. Baethge et al., 2018; Prem et al., 2018; Schmitt et al., 2015).

In the academic world, worry/strain has been taken as the main obstacle, that is extremely disturbing the employee's performance at work, while researchers have emphasized that well educated and practised employees suffer more from stress/strain in their professions due to overloaded works as for of the abilities they have in comparison to other workers (Shoaib, Mujtaba, & Awan, 2018). In accumulation, to the sector of the higher education department, teachers suffer from stress because of extraordinary expectations related to the job and over workload which if not solved accurately, cause burnout (Yusoff & Khan, 2013).

Engagement in work is considered as a positive sign of well-being, signifying a fulfilled work-related and positive mental state which is categorized into three types as vigour, dedication & absorption (Schaufeli & Bakker 2001). In literature, however, the notion of engagement in work is in its beginning, work engagement has primarily attained ample focus theoretically (Byrne & Canato, 2017), it boosts the scholars to develop ever advance industrial & instinctual speculative concepts into experimental sciences for both societies & organizations. This type of strong emphasis is intended for promoting impending and advantageous results of work engagement, which improves the person's physical as well as mental comfort (Roelen et al., 2015), increases the enactment of organizations (Alessandri, Borgogni, Schaufeli, Caprara, & Consiglio, 2015), improves the institutional citizenship behaviour (Gupta, Shaheen, & Reddy, 2017), improves the institutional obligation (Hanaysha, 2016), employees gratification with the job (Gutiérrez, Tomás, Romero, & Barrica, 2017), & individual's retaining (Chen, 2017).

A survey revealed that work engagement slows down all over the world and is common throughout Asia (Roman & Frantz, 2013). It is obvious that if the supervisor/manager communicates well and identifies the difficulties/issues of his/her team members and empathizes with them then staffs become extra engaged in their work (Byrne & Canato, 2017). Thus, organizations need to discover better and effective strategies to boost their workers to diminish the disengagement and exhaustion to help them in becoming even more absorbed and dedicated at their place of work (Balch & Shanafelt, 2018; Southwick & Southwick, 2018).

Burnout syndrome is a result of stress-related to one's work (Maslach et al., 2001; Elshaer et al., 2018). Maslach et al. (2001) defined burnout by way of psychological disease that appears in reaction to emotional stressors. It affects workers of the organizations i.e. teachers, police, nurses and doctors were affected mostly due to high job demands. (Sarisik et al., 2019). World Health Organization (WHO) follows the International Classification of Disease 11 for defining burnout, such as an outcome of the prolonged job or office strain that cannot be managed by workers at their workplace (WHO, 2019).

Disengagement, exhaustion and engagement in work throughout the higher teaching department of an Islamic nation like Pakistan have become one of the basic concerns for policymakers, teaching staff and professionals who are directly or ultimately affected by the worker's low performance in these particular sectors. However, workers' problems related to disengagement, exhaustion and engagement in work have been increased in Pakistani organizations for a couple of years (Bhatti, Alshagawi, & Syah Juhari, 2018).

Job throughout the educational department is perceived as hard and demanding because the teacher's had to work lengthily tough in fulfilling the demands of their specific organization and also have to cover the course work in the requisite time (Maricuțoiu, Sulea, & Iancu, 2017). When talking about the teaching field, the wage is low in this field in comparison to the size of a class. So, by increasing class size, issues also take place to such a level that a teacher can become exhausted because only the teacher has to deal with the student problems. Furthermore, workload and work pressure are increasing with time which eventually leads to cynicism and exhaustion (Ahola, Toppinen-Tanner, & Seppänen, 2017).

Literature Review

Past studies exhibited that pressure of time has a significant positive correlation with both engagement in work (Baethge et al., 2018; Schmitt et al., 2015) and fatigue (Leinhos et al., 2018; Prem et al., 2018). The pressure of time may be positively and linked to working engagement because employees observe a positive link among the struggles and the probability of effectively fulfilling these demands, which results in practices of individual achievement. This postulation is also in support of the Job Demand-Resource theory that these workplace demands may trigger workers to devote extra energies to achieve and may consequently also show role related to

motivational which disturbs the motivation related processes (Bakker & Demerouti, 2017).

Though, the Job Demand-Resource concept (Bakker & Demerouti, 2017) postulates that workplace-related hassles, though when being thought-provoking, quiet need and ditch the individual's physical and psychological resources which contribute to being high in individually practised indications of stress. Therefore, the pressure of time may be positively linked with exhaustion because it depletes and needs personal resources by reflecting the anticipated health-impairment procedure triggered by experiencing the demands related to the job (cf. Bakker & Demerouti, 2017). Though research studies about teachers' work engagement are limited in comparison to teacher exhaustion and disengagement, although engagement in work has been revealed to forecast affirmative results (Han et al. 2016; Bermejo Toro, Prieto Ursúa, & Hernández 2016).

Burnout is linked with various outcomes i.e. not coming to the job (Maslach, 2017; Gusy et al., 2019), problems related to health (Maslach, 2017; Simionato et al., 2019), an increase in errors throughout the work period (Stehman et al., 2019; Bakker and Wang, 2020), employees enactment related to the job (Bakker and Demerouti, 2017; Bakker and Wang, 2020), and despair (Gil-Monte, 2012; Nagy et al., 2018; Hatch et al., 2019). Job demands are of utmost vital associated with fatigue (Bakker and Demerouti 2017). Several types of researches related to teacher's overall comfort (comfort, health) have shown that exhaustion is an adverse consequence of stress allied to work (Renshaw, Long & Cook 2015). Cynicism is expected to disturb the cognitive abilities of a worker which make him less dedicated to work. Research on Iranian teachers shows a substantial association among disengagement, exhaustion and engagement in work (Faskhodi & Siyyari, 2018).

Additionally, two-wave longitudinal research has been completed in nearly eight months by Llorens-Gumbau and Salanova-Soria (2014) which revealed a negative correlation among the dimensions of burnout such as cynicism, exhaustion and employees engagement in work (vigour, dedication). The workers feel fatigued at a job when demands related to one's work are so high to deal with. Next, a research study examined by Hakanen, Schaufeli, and Ahola (2008) shows a negative relationship mediated by burnout among a quantitative load of work and low bodily functioning settings on the job gratification of faculty members.

The comparative and measurable amount of work of higher employment takes one to disengagement and exhaustion which then take individual towards mental and physical symptoms which include problems related to headaches, cardiovascular and gastric system. Though, numerous researches not in support of burnout as a third variable related to the job in the association among work-related demands and somatic well-being problems among the sample of Austrian blue-collar and white-collar employees. Thus, it looks like demands related to the job disturb the mental as well as physical health of employees directly or indirectly by burnout, which in result disturb the individual

and organizational results. It is obvious from the recent research findings that demands related to the job i.e. time pressure and cognitive load disturb workers' minds, and as a result affect employees' engagement throughout the work (Bakker & Albrecht, 2018; van der Doef & Schelvis, 2018).

The present research aimed to examine the association of challenging job demands with work engagement and job-related burnout and to explore the influence of challenging job demands on teachers' work engagement. Another objective was to find out the mediating part of job-related burnout in the relationship of challenging job demands and work engagement among teachers.

Based on the aforementioned discourse, it has been hypothesized for the current study that:

H1- Challenging job demands would be the positive predictor of teacher's work engagement.

H2- Job burnout would have a significant mediating role in the relationship among challenging demands related to job and work engagement among university teachers.

Method

Research Sample & Design

A purposive sample of 200 teachers was collected from different private and government universities in Punjab, Pakistan. So inclusion criteria were set as only teachers having two or more than two years of job experience, involvement in research-based activities with the educational level of M.Phil and PhD were made part of this present research. Both male 51% and female 48% of teachers were part of the present study. Sample age range was 24 to 49 years ($M = 35.14$, $SD = 6.15$). The survey study design was applied in the present research and self-administered questionnaires were used.

Measures

Challenging Job Demands Urdu Version Questionnaire was developed by Makhdoom (2017). The scale consisted of 13 items and 3 subscales, time pressure, social load, and cognitive load with 5 points Likert scale response format range from (1= strongly disagree to 5= strongly agree). The real Cronbach's alpha reported by the author for the total scale was .87, .87, .75 and .84 for the total scale, time pressure, social load, and cognitive load. However, Cronbach's alpha for the present study was .89, .88, .77, and .77 for the total scale, time pressure, social load, and cognitive load respectively.

Work Engagement Scale called as Ultra-Short Measure for Work Engagement with 3 items constructed as well as authenticated by (Schaufeli et al., 2017) was applied to measure teacher's vigour, dedication and absorption in their work. It was a 7 points Likert scale response format that ranges between (1= never to 7= always). Real Cronbach's alpha was reported by the author across five countries Finland .80, Japan .85, Netherlands .82, Flanders .85 and Spain .77. For the current study work engagement scale was translated into the Urdu language. The scale was translated in

Urdu with the help of a committee approach. The committee approach is a more convenient and better way of translating the scales as it involves more than one experienced person therefore chances of mistakes and errors become less. Furthermore, it also decreases the chances of biasness due to the involvement of more than one/two experts. Likewise, it also involves pretesting the translated scales which facilitate the translator team (committee members) to find out the probable errors/mistakes in translated scales and gives chance for modifications in these scales (Pan & Puente, 2005; European social survey, 2012). The translation procedure invents measures of all the constructs applied in Part-II of the present research study which was revealed excellent psychometric properties. However, the alpha value in the present research was found to be good such as .90.

Oldenburg Burnout Inventory (OLBI) was constructed by Demerouti et al. (2010) and transformed into an Urdu version by Iqbal (2019). This scale consisted of 16 items with two subscales disengagement and exhaustion with 4 points Likert scale (1= strongly agree to 4= strongly disagree). For the current study, the Urdu translated version of the scale was used which was translated by Iqbal (2019). Thus original reliability reported by the author for the overall questionnaire was .85. However, the alpha value for the present study was .69, .61 and .63 for the total scale, disengagement and exhaustion respectively.

Procedure

The current research study was started after the formal approval of the research topic by the Institutional Research Board in Psychology, University of Sargodha, Pakistan. For conducting this study, proper permission was taken from the authors who constructed the scales. For the current research purposive sample of teachers was contacted at the different private and public universities of Sargodha, Lahore, Faisalabad and Islamabad and explained to them the aim of the study. However, the researcher adhered to APA ethical guidelines strictly and the sample was properly debriefed about the objectives of this research study, informed permission was taken and confidentiality assurance about collected information was provided as ethical research is vital for good scientific inquiry and this standard was ensured. To reach the far respondent's online Google form was generated and for near respondents, questionnaire booklets were distributed. For this research data, the collection period was from January 2021 to April 2021. To test the study hypotheses and study was conducted on 200 samples and data transported to an SPSS data set.

Results

Table 1

Mean, standard deviation, Alpha reliability and Correlation analysis for Study Variables (N = 200)

Variable	<i>M</i>	<i>SD</i>	Range	<i>Cronbach's α</i>	<i>CJDs</i>	<i>WE</i>	<i>JBO</i>
CJDs	45.26	9.08	13-65	.89	-	.48**	-.27**
WE	15.93	4.58	3-21	.90		-	-.39**

JBO	35.74	5.05	21-50	.69			-
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Note. CJDs = challenging job demands; WE = work engagement; JBO = job burnout
 **p < .01.

Table 1 shows psychometric properties and Pearson correlation for study variables. Challenges related to job demands has significant positive correlation with engagement in work as ($r = .48, p < .01$) and has significant inverse correlation with job related burnout as ($r = -.27, p < .01$). This correlation might be inferred that challenging job demands have a positive relationship with engagement in work but have a negative correlation with job-related burnout. Results also indicated that work engagement has a significant negative correlation with job-related burnout as ($r = -.39, p < .01$).

Table 2

Regression Coefficients of Challenging Job Demands on Work Engagement (N = 200)

Variable	B	β	SE
Constant	4.93**		1.45
Challenging Job Demands	.24***	.48***	.03
R ²	.23		

***p < .001. **p < .01.

Table 2 shows the influence of challenges related to job demands on work engagement among university teachers. The R² value of .23 showed that the independent variable elucidated 23% change in the dependent variable with $F(1, 198) = 59.65, p < .001$. The findings revealed that challenging job demands positively predicted work engagement ($\beta = .48, p < .001$).

Table 3

Standardized Path Coefficients for Direct and Indirect Effects of CJDs (N = 200)

Paths	Outcome Variable	Predictor Variable	β	SE	95% CI	
					LL	UL
a	WE	CJDs	.20***	.03	.14	.27
b	JBO	CJDs	-.15***	.04	-.23	-.07
c	WE	JBO	-.26***	.06	-.37	-.15
d	WE	CJDs through JBO	.04	.01	.02	.06

Note. CJDs = challenging job demands; WE = work engagement; JBO = job burnout.
 ***p < .001.

Results of table 3 indicated that challenges related to job demands was significant predictor for engagement in work ($\beta = .20, SE = .03, 95\% CI \{.14, .27\}, P < .001$), challenges related to job demands was significant predictor for job burnout ($\beta = -.15, SE = .04, 95\% CI \{-.23, -.07\}, P < .001$) and that job burnout was significant predictor for work engagement ($\beta = -.26, SE = .06, 95\% CI \{-.37, -.15\}, P < .001$). Results shows that job burnout was significant predictor of work engagement after controlling for the mediator, job burnout ($\beta = .04, SE = .01, 95\% CI \{.02, .06\}$), consistent with mediation. Nearly, 30% of the change in work engagement was

accounted for by the predictors ($R^2 = .30$). The indirect effect was tested by applying a percentile bootstrap estimation method with the 5000 samples, and executed with the Process Macro Version 3.5 (Hayes, 2017). These above results revealed that indirect coefficient was significant, ($\beta = .04$, $SE = .01$, $95\%CI \{.02, .06\}$). the mediator job burnout, accounted for approximately 95% of the total effect on work engagement [$PM = (.20) / (.04)$].

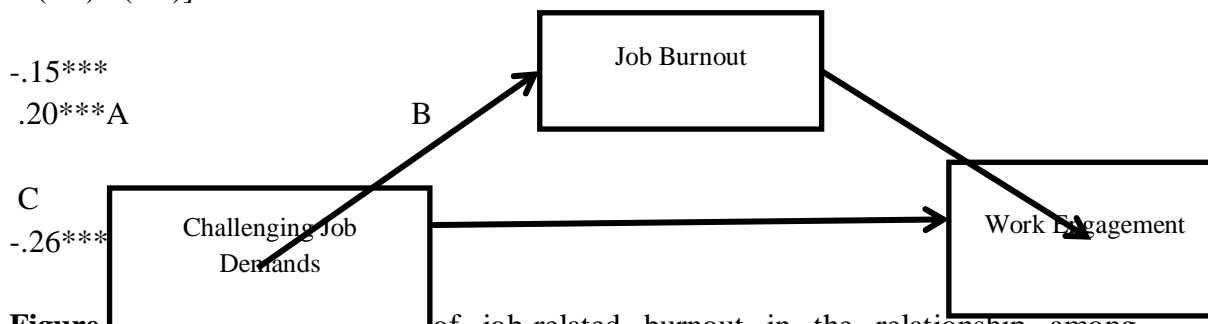


Figure of job-related burnout in the relationship among challenging job demands and work engagement

Discussion

The current research study attempted to examine the association of challenges related to job demands with engagement in work and to see the influence of challenges related to job demands on work engagement among university teachers. One of the other objectives was to explore the mediating role of job burnout with challenges related to job demands and work engagement. Generally, all the hypotheses testing yielded significant results regarding the present study. The present study hypothesized that challenging job demands would be the positive predictor of teacher's engagement in work was accepted as significant findings revealed that challenging job demands ensure a strong significant and positive impact on employees work engagement. However present study results are in line with literature as time pressure one of the challenging job demands has the power to stimulate a motivational procedure (e.g. Baethge et al., 2018), on daily observations Baethge et al., (2018) expected a positive correlation among the pressure of time and engagement throughout the work. Examining the influence of pressure of time on work-related consequences such as burnout and engagement in work in the daytime is established on the inconsistent influences of the pressure of time on engagement in work when seeing intra-individual variants (within-individual influences; e.g. Baethge et al., 2018; Prem et al., 2018). Furthermore, two-year longitudinal research done by Mauno and colleagues (2007) revealed that pressure of time predicts higher intensities of work absorption. Experimental studies showed that those individuals who are likely to be engaged in demanding tasks perform better because they focus their full attention on the duty (Hopstaken, van der Linden, Bakker & Kompier, 2015; Hopstaken, van der Linden, Bakker, Kompier & Leung, 2016).

This research also hypothesizes that burnout related to the job would have a significant mediating role in the association of challenging job demands and engagement in work among teachers. This study results determined the significant and partial mediating role, which showed that burnout related to the job has a mediating

role in the relationship of challenging job demands and one's engagement in work. In the current research challenges related to jobs, demands are measured by a new construct challenging job demands scale consisting of three subscales as time pressure, social load and cognitive load. Though these constructs are difficult to manage during working hours, if an employee wants a high position, high salary and a lot of achievements from the job then the employee will accept these constructs as a challenge. By accepting a challenge or tough job one has to perform duties with absorption, dedication and vigour which fulfil the criteria of work engagement. But, it is natural that at any point a person that may be a school teacher, college teacher, university teacher or is working in any other organization can become exhausted or may feel the strain from work.

A research investigation done by Hakanen, Schaufeli, and Ahola (2008) shows a negative relationship mediated by burnout among a quantitative load of work and deprived bodily working settings on job gratification among educators. The comparative and measurable amount of work of extraordinary job takes one's towards disengagement and exhaustion which then takes individuals to mental as well as somatic indications, such as cephalgia, issues of the circulatory system and gastric issues. Though, numerous researches don't confirm the mediating role of job-related burnout in the association of demands related to the job and somatic health problems in a sample of Austrian blue-collar and white-collar employees. Thus, it looks like demands related to the job disturb the mental as well as physical health of employees directly or indirectly by burnout, which in result disturbs the individual as well as organizational consequences. It is obvious by recent research investigations that demands related to job i.e. time pressure disturb member of staff minds, and as a result affects disengagement, exhaustion and engagement throughout work (Bakker & Albrecht, 2018; van der Doef & Schelvis, 2018).

Though, the Job Demand-Resource theory (Bakker & Demerouti, 2017) postulates that demands related to the job, though being challenging and quiet need and ditch the individual's physical and psychological resources which contribute to arise in individually experienced indications of stress. Therefore, the pressure of time may be positively linked to exhaustion because it depletes and involves personal resources, reflecting the suggested health-impairment procedure triggered with the experience of demands related to the job (Bakker & Demerouti, 2017).

Limitations

Like other social science researches, the present study also had some limitations. The first limitation was that the current study used quantitative measures which may limit the respondents from freely expressing their burnout about their job. Present study results cannot be generalized throughout Pakistan because of self-report measures, limited sample and cross-sectional study design which prevents the researcher from exploring any conclusion regarding the causes of the relationship.

Practical Implications

The present study might be helpful to facilitate the teachers to increase their level of engagement towards their work. This study is also helpful for those employees who face time pressure, social load as well as cognitive load in their organizations because it makes their job challenging and hence decreases the level of burnout. The present study results also indicated that university teachers become extra engaged in their work when they are facing time pressure, consequently, the university's management system must confirm that their staff are persistently been provided with a duty that requires to be accomplished in a restricted time of the frame. Moreover, this research study finding could be helpful in business, educational psychology and also in human resource administration.

Conclusion

The current study concluded that challenges related to job demands strongly and positively predicted the engagement in work among university teachers. However, the present study also concluded the significant and partial mediating role of job burnout in the association of challenging job demands and engagement in the work of teachers.

References

- Ahola, K., Toppinen-Tanner, S., & Seppänen, J. (2017). Interventions to alleviate burnout symptoms and to support return to work among employees with burnout: Systematic review and meta-analysis. *Burnout Research*, 4, 1-11.
- Alessandri, G., Borgogni, L., Schaufeli, W. B., Caprara, G. V., & Consiglio, C. (2015). From positive orientation to job performance: The role of work engagement and self-efficacy beliefs. *Journal of Happiness Studies*, 16(3), 767-788.
- Baethge, A., Vahle-Hinz, T., Schulte-Braucks, J., et al. (2018) A matter of time? Challenging and hindering effects of time pressure on work engagement. *Work and Stress*, 32(3): 228–247.
- Bakker AB and Demerouti E (2007) The job demands-resources model: State of the art. *Journal of Managerial Psychology*, 22(3): 309–328.
- Bakker, A. B., & Albrecht, S. (2018). Work engagement: Current trends. *Career Development International*, 23(1), 4-11. doi:10.1108/CDI-11-2017-0207
- Bakker, A. B., & Demerouti, E. (2017). Job demands-resources theory: Taking stock and looking forward. *Journal of Occupational Health Psychology*, 22(3), 273–285.
- Bakker, A. B., & Wang, Y. (2020). Self-undermining behavior at work: Evidence of construct and predictive validity. *International Journal of Stress Management*, 27(3), 241-251.
- Balch, C. M., & Shanafelt, T. D. (2018). The role of leaders, supervisors, and individual surgeons in reducing burnout and promoting physician wellness. In *Surgical mentorship and leadership* (pp. 267-282). Springer, Cham.
- Bermejoto, L., M., Prieto-Ursúa, & Hernández, V. (2016). Towards a Model of Teacher Well-Being: Personal and Job Resources Involved in Teacher Burnout and Engagement. *Educational Psychology*, 36 (3): 481–501.

- Bhatti, M. A., Alshagawi, M., & Syah Juhari, A. (2018). Mediating the role of work engagement between personal resources (self-efficacy, the big five model) and nurses' job performance. *International Journal of Human Rights in Healthcare*, 11, 176-191.
- Byrne, J. M., & Canato, A. (2017). It's been a hard day's night: Work-family interface and employee engagement. *Organizational Dynamics*, 46, 104-112.
- Chen, I. S. (2017). Work engagement and its antecedents and consequences: A case of lecturers teaching synchronous distance education courses. *Computers in Human Behavior*, 72, 655-663.
- Demerouti, E., & Bakker, A. B. (2008). The Oldenburg Burnout Inventory: A good alternative to measure burnout and engagement. *Handbook of stress and burnout in health care*, 65, 78.
- Elshaer, N. S. M., Moustafa, M. S. A., Aiad, M. W., & Ramadan, M. I. E. (2018). Job stress and burnout syndrome among critical care healthcare workers. *Alexandria Journal of Medicine*, 54(3), 273-277.
- Faskhodi, A. A., & Siyyari, M. (2018). Dimensions of work engagement and teacher burnout: A study of relations among Iranian EFL teachers. *Australian Journal of Teacher Education (Online)*, 43(1), 78-93.
- Ford, M. T., Matthews, R. A., Wooldridge, J. D., Mishra, V., Kakar, U. M., & Strahan, S. R. (2014). How do occupational stressor-strain effects vary with time? A review and meta-analysis of the relevance of time lags in longitudinal studies. *Work and Stress*, 28(1), 9-30.
- Gil-Monte, P. R. (2012). Influence of guilt on the relationship between burnout and depression. *European Psychologist*, 17, 231-236.
- Gupta, M., Shaheen, M., & Reddy, P. K. (2017). Impact of psychological capital on organizational citizenship behaviour: Mediation by work engagement. *Journal of Management Development*, 36, 973-983.
- Gusy, B., Lesener, T., & Wolter, C. (2019). Measuring well-being with the Utrecht work engagement scale – student form validation of a 9- and a 3-item measure of student engagement. *European Journal of Health Psychology*, 26, 31-38.
- Gutiérrez, M., Tomás, J. M., Romero, I., & Barrica, J. M. (2017). Perceived social support, school engagement and satisfaction with school. *Revista de Psicodidáctica (English ed.)*, 22(2), 111-117.
- Hakanen, J. J., Schaufeli, W. B., & Ahola, K. (2008). The job demands-resources model: A three-year cross-lagged study of burnout, depression, commitment, and work engagement. *Work and Stress*, 22, 224-241.
- Hanaysha, J. (2016). Testing the effects of employee engagement, work environment, and organizational learning on organizational commitment. *Procedia-Social and Behavioral Sciences*, 229, 289-297.
- Hatch, D. J., Potter, G. G., Martus, P., Rose, U., & Freude, G. (2019). Lagged versus concurrent changes between burnout and depression symptoms and unique

- contributions from job demands and job resources. *Journal of Occupational Health Psychology*, 24(6), 617-628.
- Leinhos, J., Rigotti, T., & Baethge, A. (2018) Time and performance pressure. *Zeitschrift für Arbeits- und Organisationspsychologie A&O*, 62(1), 1–13.
- Llorens-Gumbau, S., & Salanova-Soria, M. (2014). Loss and gain cycles? A longitudinal study about burnout, engagement and self-efficacy. *Burnout Research*, 1, 3-11.
- Maricuțoiu, L. P., Sulea, C., & Iancu, A. (2017). Work engagement or burnout: Which comes first? A meta-analysis of longitudinal evidence. *Burnout Research*, 5, 35-43.
- Maslach, C. (2017). Finding solutions to the problem of burnout. *Consulting Psychology Journal: Practice and Research*, 69(2), 143-152.
- Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual Review of Psychology*, 52(1), 397-422.
- Makhdoom, I. F. (2017). *Job crafting, job burnout and workaholism: Role of job demands and resources among university teachers*. An Unpublished doctoral dissertation, University of Sargodha, Pakistan.
- Nagy, G. A., Fang, C. M., Hish, A. J., Kelly, K., Nicchitta, C. V., Dzirasa, K., et al. (2018). Burnout and mental health problems in biomedical doctoral students. *CBE—Life Sciences Education*, 18(2), 1–14.
- Prem R, Paškvan M, Kubicek B, et al. (2018) Exploring the ambivalence of time pressure in daily working life. *International Journal of Stress Management*, 25(1): 35–43.
- Renshaw, T. L., Long, A. C. & Cook, C. R. (2015). Assessing Adolescents' Positive Psychological Functioning at School: Development and Validation of the Student Subjective Wellbeing Questionnaire. *School Psychology Quarterly*, 30 (4): 534–552.
- Roelen, C. A. M., Van Hoffen, M. F. A., Groothoff, J. W., De Bruin, J., Schaufeli, W. B., & Van Rhenen, W. (2015). Can the Maslach Burnout Inventory and Utrecht Work Engagement Scale be used to screen for risk of long-term sickness absence?. *International Archives of Occupational and Environmental Health*, 88(4), 467-475.
- Roman, N. V., & Frantz, J. M. (2013). The prevalence of intimate partner violence in the family: a systematic review of the implications for adolescents in Africa. *Family Practice*, 30(3), 256-265.
- Sarisik, M., Bogan, E., Zengin, B., & Dedeoglu, B. B. (2019). The impact of burnout on organizational commitment: A study of public sector employees in Turkey. *Journal of Global Business Insights*, 4(2), 106-118.
- Schaufeli, W. B., & Bakker, A. B. (2001). Work and well-being: Towards positive occupational health psychology. *Gedrag en Organizatie*, 14(5), 229-253.

- Schmitt, A., Ohly, S., & Kleespies, N. (2015). Time pressure promotes work engagement: Test of illegitimate tasks as a boundary condition. *Journal of Personnel Psychology*, 14, 28–36.
- Shoaib, S., Mujtaba, B. G., & Awan, H. M. (2018). Overload stress perceptions of public sector employees in Pakistan: a study of gender, age, and education in South Asia. *Public Organization Review*, 19(3), 311-324.
- Simionato, G., Simpson, S., & Reid, C. (2019). Burnout as an ethical issue in psychotherapy. *Psychotherapy*, 56(4), 470-482.
- Southwick, F. S., & Southwick, S. M. (2018). The loss of a sense of control as a major contributor to physician burnout: a neuropsychiatric pathway to prevention and recovery. *JAMA Psychiatry*, 75(7), 665-666.
- Stehman, C. R., Testo, Z., Gershaw, R. S., & Kellogg, A. R. (2019). Burnout, drop out, suicide: physician loss in emergency medicine, part I. *Western Journal of Emergency Medicine*, 20(3), 485-494.
- Stiglbauer, B. (2018). Differential challenge and hindrance stressor relations with job-related core affect. *International Journal of Stress Management*, 25(1): 62–80.
- Van der Doef, M. P., & Schelvis, R. M. (2019). Relations between psychosocial job characteristics and workability in employees with chronic headaches. *Journal of Occupational Rehabilitation*, 29(1), 119-127.
- Widmer, P. S., Semmer, N. K., Kälin, W., et al. (2012) The ambivalence of challenge stressors: Time pressure associated with both negative and positive well-being. *Journal of Vocational Behavior*, 80(2): 422–433.
- WorldHealthOrganization(2019).*InternationalClassificationofDisease*.Genevra: World Health Organization.
- Yusoff, R. M., & Khan, F. (2013). Stress and burnout in the higher education sector in Pakistan: A systematic review of the literature. *Research Journal of Recent Sciences*, 2, 90-98.