

Understanding academic's job stress through a moderated-mediation model of perceived supports and working hard

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Abstract

Purpose – This research aims to develop a model built from the job demand-resource (JD-R) theory which explains the psychological mechanism that leads to academic work-related stress in an educational context. This study investigates the conditional effect of ambidextrous working hard through mediation paths and the moderating role of perceived support on these conditional effects.

Design/methodology/approach – Hypotheses were tested using cross-sectional data from 334 academics at Vietnamese institutions. Data were analysed within a moderated mediation model integrated from hierarchical regression.

Findings – The results revealed that while work engagement (WE) partially mediates the indirect effect of person-job fit (PJF) on job-related stress, workaholism (WKH) – as an escalated stage of working hard – fully explains the psychological mechanism with moderated integration from social supports.

Originality/value – This paper hopes to contribute to the growing educational literature exploring the complex, multi-conditional influences of personal and social factors to measure academics' psychological changes that lead to a negative reaction at work.

Keywords Job demand-resource theory, Working hard, Perceived support, Job-related stress

Paper type Research paper

JEL Classification — I31, I29, C120

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Ethical statement: This study was conducted in accordance with the ethical guidelines of RMIT Melbourne and complies with the Australian Code for the Responsible Conduct of Research and the Australian National Statement on Ethical Conduct in Human Research. Ethical approval was obtained from the Business College Human Ethics Advisory Network (Approval Number: BCHEAN22659).

All participants provided informed consent before taking part in the study. Confidentiality and anonymity of the participants were ensured, and all collected data were used solely for research purposes. No personal identifying information was disclosed.



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1. Introduction

Academics are core to institution success in the higher education context, which is dependent on the creation and transformation of knowledge (Siekkinen *et al.*, 2020). Hence, they bear heavy workloads due to continuous change in their institution through the dual task of teaching and research (Solomon *et al.*, 2022). Academic performance and career orientation are subject to institutional changes that directly impact their well-being through factors such as work intensity, work–life imbalance, collegiality, role clarity and autonomy erosion (Butler, 2007). Mounting stress and pressure within universities have led to the increasing significance of research regarding the stress that academics face in the workplace (Bell *et al.*, 2012).

Through the lenses of organisational and psychological theories, job characteristics can vary depending on the types of employee well-being (Grover *et al.*, 2018). Extant literature utilises the circumplex model of subjective well-being in the workplace to explain employee well-being aspects, such as work engagement (WE), workaholism (WKH) and burnout (Bakker and Oerlemans, 2011; Flaxman *et al.*, 2012). Besides that, the challenge-hindrance stressor model also explains how demands at work can encourage employee effort through challenges or hinder performance. Therefore, the study seeks to highlight the mechanism of job characteristics in managing academic well-being to extend the contribution of knowledge to psychological behaviour.

To understand stress management within the institutional context, we utilise the job demand-resource model (JD-R) to explain the tendency of academics to perceive job fit as job demand in regulating occupational and environmental factors. Person-job fit (PJF) is a prerequisite for academic jobs due to academic ability and skills demand (Chen *et al.*, 2016). In this paper, we argue that academics are more likely to work hard if they see an elevated level of PJF. Institutional treatment is crucial to encourage academics to work hard (Siekkinen *et al.*, 2020). In that case, managers play an essential role, as they can influence academic behaviours through direct and indirect support. Specifically, forms of support such as motivation, open communication and advanced opportunities directly lift academics' emotional feelings, while institution-wide types of support, such as appropriate policy and job arrangements, create a positive work environment (Eisenberger *et al.*, 2002). Academics' work process benefits from the adequate ability for job performance and an academic's willingness to work hard produce various stages of psychological behaviour (Caesens *et al.*, 2014). While engagement (as a specific stage of working hard) is argued to lead to positive outcomes such as improvement of work performance, work–life balance and well-being, another psychological stage of WKH that prevents academics from achieving the best performance is job stress (Langseth-Eide, 2019). In this paper, we explore ambidextrous working hard, which captures the duality of working behaviours of academics (Schaufeli *et al.*, 2008). It reflects both the positive outcomes of engagement and the heavy workload associated with WKH.

Management support at various levels therefore plays a role in lessening job stress by affecting the academic psychological mechanism in a way that promotes the usefulness of WE and lessens the stressors created by WKH.

This study aims to explore the complex, multi-conditional influences of occupational and environmental factors to measure academics' psychological changes that lead to negative well-being at work. The objectives of this research are to examine (1) the consequences of forms of working hard generated from academics' high sense of PJF, (2) whether diverse types of management support at different levels can change the way academics behave at work and (3) the mechanism of academics' behaviour to manage job stress. Hence, our study contributes in several ways to the literature on personnel in the education sector. First, by applying the JD-R model, we provide evidence that high PJF influences academic stress via WE, where stress is reduced, and WKH, where stress is increased. Second, while the literature has not focused much on the cross-effect caused by several types of perceived support, this study reveals that institutional and manager support are interrelated, whereby stress management depends on the level of management support. Third, this study provides practical guidance for institutional leaders to track of academics' change behaviour.

2. Theory and hypotheses

2.1 Job demand-resource theory, person-job fit and academic job stress

According to the JD-R theory, job demands encompass various physical, psychological or social factors that require continuous physical or mental exertion. These demands are associated with physiological and psychological costs, such as emotional exhaustion and strain. In addition, job resources consist of aspects that mitigate job demands and their adverse effects on health, facilitate accomplishing goals, and foster personal growth and development (Bakker and Demerouti, 2007). The theory suggests that prolonged exposure to excessive job demands without sufficient recovery may result in sustained activation and strain, eventually leading to exhaustion. Furthermore, a resource deficiency hinders the fulfilling of job demands and attaining goals, prompting withdrawal behaviour. Exhaustion and withdrawal, considered lowered motivation or disengagement, are parts of burnout's energetic and motivational components (Schaufeli *et al.*, 2008). This study embraces the JD-R model as its primary conceptual framework and incorporates PJF as a significant job demand presumed to contribute to work-related stress.

The fundamental assumption of the JD-R model is that each occupation has specific risk factors linked to work-related stress. Stress arises when demands surpass the capacities or resources of an individual or when intrinsic or extrinsic rewards do not align with the individual's needs, aspirations or objectives. While job demands themselves are not inherently negative, they can transform into stressors when fulfilling these demands requires significant effort without sufficient recovery for the employee (Demerouti and Bakker, 2011). This study contends that PJF represents a crucial job demand capable of inducing job-related stress.

Occupational stress has strong links to how individuals perceive fit at work, given that the person-environment fit theory and job satisfaction studies incorporate work environment fit as central concepts (Lauver and Kristof-Brown, 2001). PJF refers to how a person can adapt to a specific job (Chuang *et al.*, 2016). Previous studies showed a negative relationship between PJF with job strain and turnover intention (Lauver and Kristof-Brown, 2001; Wang *et al.*, 2011). PJF is related to components of job burnout that are psychological syndromes in response to chronic work stress via multiple psychological mechanisms.

Demands and resources play an important role in promoting employee engagement (Mazzetti *et al.*, 2023). Challenge demands negatively affects WE because they can obstruct employees' efforts to attain their goals (Kim and Beehr, 2018). PJF can be categorised as a challenge demand as it shows how an individual's capability can fit into the requirements of a job and can hinder their effort, especially when one finds they do not have the suitable skills and abilities for the job. Therefore, this study aims to explain the psychological mechanism underlying the JD-R model that can explain the relationship between PJF and work-related stress via different behavioural factors in academia.

2.2 Probing the mechanism of academic job-related stress

In recent years, working hard has attracted considerable attention from scholars who examine work behaviour using the JD-R model, mainly because of the variety of ideas about its values and consequences (Langseth-Eide, 2019). There are two types of working hard known as WE and WKH (Schaufeli *et al.*, 2008). WE represents a positive and fulfilling psychological state relating to work, while WKH encompasses a mixture of both negative and positive aspects due to the uncontrollable need to work excessively. In this study, we follow the definition of WKH as the tendency to work excessively hard in a compulsive fashion (Schaufeli *et al.*, 2009).

Workaholic employees work continuously over a long period of time and cannot detach from their work mentally even when they are supposed to relax. As a result, they are not likely to recover after their non-working time and are more likely to diminish their resources (van Wijhe *et al.*, 2014). On the other hand, individuals who create an energetic and happy connection with their job are called work-engaged employees (Schaufeli *et al.*, 2008). Perceived stress was found to have a negative relationship with WE but a positive relationship

with WKH (Caesens *et al.*, 2014). The study by Langseth-Eide (2019) found that work-related health had a positive relationship with WE but a negative relationship with WKH.

The concept of WKH is extensively studied in the context of modern universities due to radical changes in universities, for example, funding cuts from state authorities, increased reliance on external markets, the adoption of new public management approach, greater bureaucratization often at the cost of faculty's autonomy and academic freedom (Hogan *et al.*, 2016). Consequently, academics experience longer working hours, heightened pressure to publish and heavy workloads, leading to increased stress and work intensity (Guidetti *et al.*, 2020). This is often combined with decreasing resources and competing demands (Hogan *et al.*, 2016). Unsurprisingly, behaviours associated with WKH, such as working on weekends, taking work home and working late into evenings, are frequently observed in academic settings (Hogan *et al.*, 2016; Guidetti *et al.*, 2020). Given the prevalence of heavy workload in academia, where many factors fostering WKH are present, an examination of WKH within this sector is timely.

Some studies found a distinction between WE and WKH, while others found them to be correlated either with a negative effect or a positive effect (Schaufeli *et al.*, 2009). This contradiction suggests a complex combination emerging within the academic intra-individual level. The JD-R theory proposes that high job demand can lead to different stages of occupational characteristics, where it can encourage academic WE through challenging tasks with a reasonable amount of effort or escalate the academic sense of obsession (Kinman and Johnson, 2019). WE and WKH refer to working hard in terms of behaviour in which academics put in time and effort for work. WE and WKH can be predicted by both individual and environmental factors, but their outcomes, i.e., performance and well-being, are not the same (Crawford *et al.*, 2010). This notion of interrelated effect supports the notion of mediating roles where WE mediates the effect of transformational leadership on job performance while WKH mediates the job demands – exhaustion path (Lai *et al.*, 2020). JD-R research supports that job demand is a strong predictor of working hard. Hence, at the individual level and in line with previous studies, we posit that:

H1. WE mediates the relationships between PJF and job stress.

H2. WKH mediates the relationships between PJF and job stress.

2.2.1 The joint moderating role of perceived organisational and supervisor support in the psychological mechanism. We propose perceived support at two specific levels, organisational support at the distal level and supervisor support at the proximal level, as moderators of the mechanism in managing job-related stress (STRESS). Perceived organisational support (POS) is employees' feelings about how their contributions are valued and how their well-being is cared for by their organisation. Employees value POS at all levels, from how the organisation cares about their well-being to how it evaluates their contributions and performances (Eisenberger *et al.*, 2001). Receiving POS makes employees feel obligated to the workplace and helps it achieve its goals (Shi and Gordon, 2020).

Another type is perceived supervisor support (PSS), which is considered employees' perspectives on how their managers care about their well-being and value their contributions (Eisenberger *et al.*, 2002). PSS dramatically affects the relationship between employees and organisations, influencing employee turnover intention, organisational commitment or job satisfaction (Kang *et al.*, 2015; Gordon *et al.*, 2019). While both types of perceived support are the manager's responsibility, Puaah *et al.* (2016) suggest that PSS tends to affect employees' internal characteristics significantly. POS and PSS have a mutual effect where one influences the other (Eisenberger *et al.*, 2002). This effect infers that if academics perceive the institution values, their contribution and their well-being, they might believe that they are favoured by the direct supervisor (Eisenberger *et al.*, 2002). Similarly, the supervisor role is aligned with institutional goals; thus, as part of academic affiliation to complete work duties, supervisors oversee initiating these goals by supporting, monitoring and providing feedback to academics

(Vandenberghe *et al.*, 2019). Examining perceived supports in the JD-R model generates conditions with an ambidextrous reaction that will eventually decrease stress. High PJF, while helping employees attach to organisational goals, can create a feeling of obligation. While Maertz *et al.* (2007) stated that obligations are distinct in employees' motivation, Albrecht and Su (2012) proved that it is indeed parallel: employees may commit to the job because they like it, or it could be an obligation. The stage of WE (as preference) or WKH (as duty) will thus be produced after that, and the role of managerial support is to help the employee manage their task efficiently (Schaufeli *et al.*, 2008). Chen *et al.* (2016) also stated that PSS enhances POS since managers are the agents of an organisation, and employees develop perceptions of their values within an organisation, represented by how their supervisor evaluates them. While the interactions of POS and PSS on job-related stress under the JD-R model have been well investigated in empirical and multiplicative theoretical studies, recent meta-analysis research also supports such effects (Vaziri *et al.*, 2022; Gonzalez-Mulé *et al.*, 2021; Kurtessis *et al.*, 2017).

Results from Kurtessis *et al.* (2017) study (broadened from the JD-R model) suggested indirect associations among the factors through employee behaviour at work. Specifically, they discussed that employees enhance positive psychological states through direct supervisor and social support (e.g. organization, colleagues), which enable them to control stress. Gonzalez-Mulé *et al.* (2021) meta-analysis also found that job demand and social support are linearly related to strain. Vaziri *et al.* (2022) developed a theoretical model utilizing the JD-R theory in a meta-analysis study. Their model suggests that role resources such as job autonomy, enhancing work-life balance and role demand (e.g. excessive workload) are associated with more negative effects such as strain, conflict and neuroticism. Crawford *et al.* (2010) also support such effects through theoretical extension and meta-analytical tests. Their managerial implications suggested the important role of supervisor support in lifting employee engagement through different forms of job variety. Crawford *et al.* (2010) argued that the JD-R model does not incorporate leadership as either a demand or resource for WE. However, supervisor support plays a vital role in employee well-being. The ad hoc stage of institutional adaptation can be stabilised sufficiently, providing high POS and PSS. Through this interrelated manner, we assume that most academics desire support from both sources with the higher order interaction formed and where one type of support affects another. Therefore, we propose the following hypotheses:

H3. POS, PSS and WE interact to affect job-related stress so that when POS and PSS are both high, WE has the most substantial negative relationship with job stress.

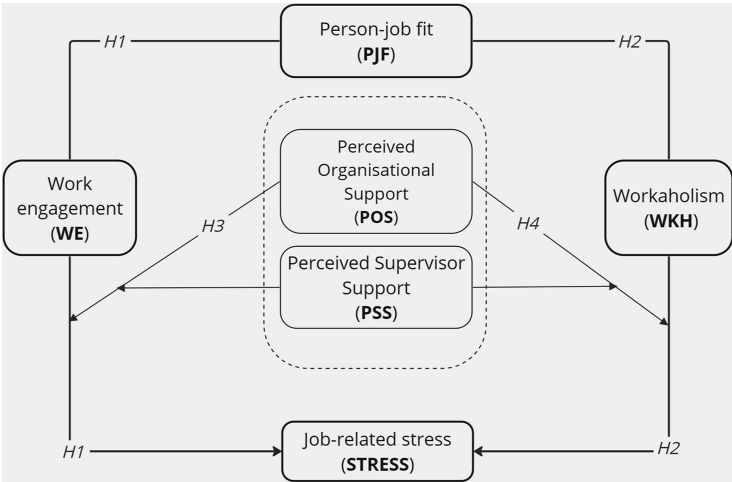
H4. POS, PSS and WKH interact to affect job-related stress in such a way that when POS and PSS are both high, WKH has the least positive relationship with job stress.

The conceptual framework of the study is represented in Figure 1.

3. Method

3.1 Procedure and participants

A field study was conducted among 77 institutions under the Vietnam Ministry of Education and Training's scheme No. 89. We retrieved academics' email addresses from the institutions' published websites to create a database list of scholars. Of the 2000 invited academics (via email with an anonymous link), 372 academics from 12 institutions participated in the survey. The response rate was 18.6%. Thirty-eight questionnaires were discarded because of incompleteness, resulting in a final sample of 334 useable questionnaires (16.7%). Demographic characteristics of the participants reveal a gender bias (69.5% male), and most of the cohort were academics who hold a master's degree or equivalent (59.9%). The participants' disciplines were mostly Business and Management (27.5%), followed by Hospitality (19.5%), Natural Science (18.3%), Linguistics (15%) and others (19.7%). Most of them are within 30–50 years of age (75.7%).



Source(s): Adapted from Schaufeli *et al.* (2008) and Eisenberger *et al.* (2002)

Figure 1. The faculty work behaviour model

3.2 Measures

The survey questionnaire gathered demographic information and utilized the five-point Likert scale for all measuring statements.

We adopted a twelve-item measure by Reheiser and Spielberger (1995) to assess job-related stress. PJF was measured using the adopted scale from Lauver and Kristof-Brown (2001).

We measured WE using the nine-item Utrecht Work Engagement scale (Schaufeli *et al.*, 2006). The Dutch Workaholism scale (ten-items) (Schaufeli *et al.*, 2009) includes two subscales working excessively and working compulsively. This scale is used for WKH measurement.

We utilized the same six-item scale of POS validated by Eisenberger *et al.* (2001) to measure both academics' POS and perceived supervisor support (PSS). One reversed item, "The ___ shows little concern for me," was recoded. To fit with the higher education context, we applied the term "Institution" to measure POS and "direct supervisor" to measure PSS.

We also controlled for the following variables: age, gender, tenure, educational level and discipline. These variables were added to the hierarchical regression model to control for the main variables.

4. Results

4.1 Common method variances, confirmatory factor analysis and descriptive analysis

First, Harman's mono-factor test was applied to screen for bias possibilities from a cross-sectional data set. The result showed that no single factor emerged, with the largest un-rotated factor accounting for 22.294% (below the 50% threshold). Therefore, common method bias did not influence our research findings.

We tested the model fit using a series of goodness-of-fit indices. The results of the hypothesized model revealed a good model fit ($\chi^2/df = 1.798$, CFI = 0.907, TLI = 0.902, IFI = 0.908). This hypothesized model was then compared with other alternative models to evaluate the construct's distinction. The suggested model was formed based on the theoretical similarity of the constructs. The results showed that the hypothesized model was a fit for the data and was a better fit than other simplified models. Table A1 [1] indicates the alternative

options of the combined models. Hence, the constructs of the hypothesized model were distinct. Convergent and discriminant validity were checked by examining composite reliability (CR) and average variance extracted (AVE). Both the CR values (from 0.859 to 0.937) and AVE values (from 0.501 to 0.599) surpassed the recommended threshold for each construct. Therefore, the results provide evidence for the constructs' discriminant validity.

Descriptive statistics of variable correlations and data reliability are presented in [Table A2 \[1\]](#). Cronbach's alpha of the main variables ranged from 0.856 to 0.923, which is above the threshold of 0.7. The correlations examined in [Table A2](#) also illustrate synthesized directions, which provide evidence to support for further hypotheses testing.

4.2 Hypotheses testing

A regression procedure was utilized to examine both direct and indirect effects with pre-after predictors controlled and interactions entered to test the hypotheses under the changes of hierarchical models.

4.3 Mediating effects

[Hypotheses 1 and 2](#) proposed the mediating roles of WE and WKH in the effect of PJF on academics' job-related stress. Results in [Table A3 \[1\]](#) showed that PJF has a positive direct association with WE ($\beta = 0.435, p < 0.001$, model 1), and a negative direct effect on WKH ($\beta = -0.375, p < 0.001$, model 2), while WE negatively affects job-related stress ($\beta = -0.146, p < 0.01$, model 4) and WKH positively affects STRESS ($\beta = -0.146, p < 0.01$, model 4). Meanwhile, PJF also has a negative direct effect on job-related stress ($\beta = -0.355, p < 0.001$, model 4). Results from direct effects indicate the mediating roles of WE and WKH before moderation effects.

We further examined the indirect effect using [Hayes \(2017\)](#) bootstrapping test to substantiate the robust cross-level effects. The results of [Table A5 \[1\]](#) further confirm the mediating roles of WE and WKH as the bootstrapping confidence interval does not contain Zero. While the total indirect effect signifies a reduction in job-related stress overall ($\beta = -0.1613$, [Table A5](#)), the double mediation effect was positive at $\beta = 0.0143$ ([Table A5](#)). Given the negative results of single mediation via WE ($\beta = -0.0672$), and WKH ($\beta = -0.1084$), we conclude that WKH is a better predictor compared to WE since the double mediation yields a favourable positive effect on job-related stress. Combining the results of direct and indirect effects confirms that [hypotheses 1 and 2](#) are supported for the mediation roles. Within the 2 dual-contradictory indirect paths, a more significant yield of WKH mediation signifies the fact that the majority of academics are experiencing more negative impact of excessive workload rather than encouragement from job-fit to engagement.

4.4 Moderating effects

[Hypotheses 3 and 4](#) predicted the three-way moderated interactions between POS, PSS and working hard on job-related stress. First, the interaction term of WE*POS*PSS did not have a significant effect on job-related stress ($\beta = -0.016$, n.s. model 6, [Table A3 \[1\]](#)). Therefore, we concluded that [hypothesis 3](#) is not supported. The results suggest that high performance academics (e.g. competent researchers, exciting and passionate lecturers) care little about social support as they are managing the stress well through dedication and engagement.

However, the interaction term of WKH*POS*PSS has a significant effect on job-related stress ($\beta = -0.286, p < 0.0001$, model 6, [Table A3 \[1\]](#)), indicating the potential for further three-way interaction tests for [hypothesis 4](#). Next, we plotted the three-way interaction. As [Figure A1 \[1\]](#) shows, WKH has the least positive relationship with job-related stress when POS and PSS are both high. Lastly, we tested the interaction's significance using [Dawson and Richter \(2006\)](#) simple slope test and slope difference test. Consistent with our theoretical arguments, the simple slope test results ([Table A4](#)) indicated that the slope difference is

strongest at High POS – High PSS (Condition 1, gradient = -0.536 , $t = -6.104$, $p < 0.001$). Furthermore, results in [Table A4](#) show that the condition of High POS-High PSS is significantly different from other slopes (pairs 1 and 2, 1 and 3, 1 and 4). Given the satisfaction of all three *post hoc* procedure conditions, [hypothesis 4](#) is supported. In contrast to H3's non-significant results, academics who are struggling with the WKH state (e.g. extra requirements, unclear expectations, additional administrative/procedure tasks and job arrangement) do need support from both distal and proximal levels.

4.5 Robustness check: Moderated mediation model

Since the hypotheses were tested separately for confirmation, we also utilized these results within a moderated-mediation model to examine the robustness of the interactions. [Muller et al. \(2005\)](#) proposed a procedure in which our conceptual model met the three combined conditions for a fully moderated mediation effect at the second stage. First, there is an overall effect between PJF and job-related stress ($\beta = -0.271$, $p < 0.001$, model 5) where the magnitude does not depend on other interactions. Second, the partial effect of WKH on job-related stress depends on the three-way interaction term WKHxPOSxPSS being significant ($\beta = -0.286$, $p < 0.001$, model 6). Finally, the moderation at the second stage is magnified by the overall treatment effect on WKH ($\beta = -0.375$, $p < 0.001$, model 2). We reconfirmed fully moderated mediation conditions with indirect effects examined using [Hayes' \(2017\)](#) bootstrapping. [Table A5 \[1\]](#) shows the results of POS-PSS moderating effects at High/Low conditions on the mediating path via WKH. All other conditions lessen the indirect effect on job-related stress, except for High POS–High PSS ($\beta = 0.1975$), which enhances the mediating path within a significant confident interval. Therefore, it can be concluded that our results are robust.

5. Discussion

Integrated from the casual effects of ambidextrous working hard and types of academic support within the JD-R model, our study aims to examine the underlying mechanism to explain academics' behaviour toward a more efficient workplace practice. Ambidextrous working hard refers to the dynamic interplay between WE – a positive, motivational state associated with well-being – and WKH, a compulsive, excessive working behaviour that can lead to stress and burnout. This duality captures the complexity of working hard among academics, where productive engagement can coexist with the risks of WKH, with outcomes shaped by the alignment of personal and environmental factors.

Our findings further explain the JD-R model assumption ([Bakker and Demerouti, 2007](#)) that while WE partially mediates the indirect effect of PJF to job-related stress, WKH – as an escalated stage of working hard – fully explains the psychological mechanism with moderated integration from organizational and supervisor supports. By confirming the mediating effects of ambidextrous working hard, the study contributes to expanding the correlation of two major theories of psychological behaviour in an academic context, JD-R theory and person-environment fit theory. The present study proposes a three-way moderation effect of the two support types on the association between WKH and job stress.

5.1 Theoretical implications

The adoption of JD-R theory has been widely studied in organisational behaviour, but the prospect of complex interactions and conditional effects within a higher order is limited, most particularly when applying it to a distinguished field such as education. This study contributes a novel insight into the academic perspective of organisational behaviour in reducing negative work outcomes. The adapted JD-R synthesises the body of the literature, with the study offering a new perspective of academic behaviour and extending the existing knowledge of the educational practice.

The findings confirm the indirect role of a person's job fit in mitigating academic job stress.

Our findings are consistent with [Park et al. \(2011\)](#), who found that PJF leads to a different stage of subjective well-being (happiness and depression). Supporting [Schaufeli et al. \(2008\)](#), [Eisenberger et al. \(2002\)](#) and [Lauver and Kristof-Brown \(2001\)](#) theoretical views, we found that PJF, whether it mitigates or increases stress, depends on the manipulation of other behavioural and social factors.

Our research makes a strong point by investigating the ambidextrous effect of working hard within the JD-R model from the organizational context ([Langseth-Eide, 2019](#)) to the institutional context. The ambidextrous effect is evidenced in [Schaufeli et al. \(2008\)](#), who found that high employee self-efficiency leads to both conditions, higher WE-satisfaction indirectly and higher WKH directly. Our results indicate that WKH is a better predictor of job stress (as a negative psychological outcome) than WE (as confirmed by [Caesens et al. \(2014\)](#) study). The mediating role of working hard found in our model contributes to the literature by providing evidence that a negative psychological mechanism will occur if positive behaviour at work is exaggerated and escalated. Evidence is supported by previous studies ([Schaufeli et al., 2008](#)), which found that both work-engaged employees and WKH led to an investment of more effort (or working hours) at work, potentially leading to burnout and job stress.

We extend the stream of personnel behaviour in education research by gaining evidence of the dual moderating roles of POS and PSS in mitigating the effect of WKH on job stress. Our investigation on the contingency circumstance of POS and PSS interaction was supported by other findings, even though previous scholars investigated their moderating role separately or depicted them as a single continuum of support ([Hernaes et al., 2019](#)). The results revealed that the interaction was shown to be insignificant (e.g. when one of the support types is low), or impacts reversely (e.g. when both supports are low) in mitigating job-related stress, as shown in [Table A5 \[1\]](#). There is further indication that increasing organizational support does not result in stress reduction if academics do not PSS. Unlike other studies that investigate single moderation ([Hernaes et al., 2019](#)), our 3-way approach points to the unique condition that the magnitude of effect can only be at its strongest form when both types of support are high. The ideal combination of multiple factors rarely happens, but our study confirms dual supports within the academic context. For example, [Zhang and Zhou \(2014\)](#) confirmed that empowering leadership can only enhance employee creativity if both uncertainty avoidance and trust are high; but other combinations yield reverse effects. As such, other configurational types (as mentioned above) underscore the importance of a direct supervisor's role in utilizing the institutional support to control academic workaholic's stress.

5.2 Practical implications

Our proposed psychological mechanism consolidates the negative effect on academics (workaholics) observed by [Vandenbergh et al. \(2019\)](#), in which POS and PSS are subject to decrease over time. While academics themselves perceive the level of institution and direct manager support, we recommend that staff participate in diagnostic surveys seasonally. This would enable managers with relevant information concerning academics' behavioural conditions to make appropriate changes where needs are suggested. Since direct managers have a greater chance of contacting academics than upper-level managers ([Eisenberger et al., 2002](#)), we suggest emphasizing evaluation and highlighting academics' roles in institutional success. Institutions can offer visible support through work arrangements, wellness programs or regular team-building programs to engage academics in the institution's activity. However, such provisions should only be tailored to the needs of academics to manage situations where WKH may incur.

Our findings indicate that to reduce job-related stress in staff, organisational support must come with support from supervisors as well. This research highlights the importance of how direct managers can impact the well-being and performance of their staff. The reversed interaction suggests that direct supervisors should possess the right characteristics which cultivate academic effort in terms of working hard. It is important to promote effective

supervision that enables open communication, aligning institutional goals with individual academics and encouraging motivation. Compatible with Crawford *et al.*'s (2010) implications, we suggest that direct supervisors should uphold their leadership skills in terms of relational support, feedback and coaching. Our finding adds to the understanding of the appointment of educational leadership and management by showing that the decision-making process can be strongly influenced by local context (Lynch *et al.*, 2012).

6. Conclusion

Our contribution is essential to the educational context in managing the vulnerability of the academic behaviour. Based on the JD-R model, our findings are consistent in promoting support to lessen academic job-related stress encounters. Perceived supports play a vital role in determining academics' work behaviour and hence require more attention in future psychological research endeavours.

Even though the results of this study contain highly relevant implications for institutional practice, limitations still remain. We assumed the moderation effects to occur at the second stage of the model, which may limit the full measurement of direct and indirect effects among variables. Besides, the contingency model with higher order interactions might not be stable. Hence, we recommend a longitudinal study with the data collection occurring at different periods to offer a more comprehensive and stable lens of the higher-order effect.

Note

1. Please see it on the Online [Appendix](#)

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Supplementary material

Supplementary material for this article can be found online.

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