

Unraveling the Work-Related Distress Profiles of Election Officers in Yogyakarta: Lessons Learned from the 2019 General Election

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Abstract. Drawing from the 2019 electoral incident, this study seeks to comprehend election officials' working context, providing insights for the forthcoming 2024 general election (Pemilu). Specifically, this study investigates the working conditions of election officials during Indonesia's 2019 general election by examining their job demands, job resources, psychological and physical stress responses. Utilizing the job demands-resources (JD-R) model, the study evaluated the job demands, job resources, psychological and physical stress responses of 212 election officials in Yogyakarta Province using part of The New Brief Job Stress Questionnaire (NBJSQ). Latent Class Analysis revealed three distinct class profiles among the 2019 election officials based on their JD-R model scores, which included job demands, job resources, psychological and physical stress responses. The majority of participants fell into class 2, characterized by high job demands and job resources but low stress reactions. In contrast, class 1 had low job demands and job resources but a high level of stress, while class 3 exhibited high job demands, low job resources, and low stress. These results indicate that high job demand and job resources can potentially lead to work-related stress, although this relationship is influenced by the specific context and nature of job demands and job resources.

Keywords: general election (Pemilu) 2019; job demands; job resources; latent class analysis; work-related stress

General elections are pivotal events in a democratic country's journey, and the Indonesian General Election, scheduled for 2024, is no exception. To ensure its success, it's essential to reflect on past elections, especially the 2019 Indonesian General Election, which shares a similar format of simultaneous voting for both legislative and executive branches (Komisi Pemilihan Umum, 2023). Learning from previous experiences is key to enhancing the efficiency and effectiveness of future elections. However, the 2019 election in Indonesia, despite its commitment to democracy, faced unexpected challenges. Notably, there were alarming incidents at the national level where 894 election officials at polling stations passed away, and 5,175 fell ill during and after the election process (Suchayo,

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2020). These occurrences raise significant concerns, particularly from the standpoint of occupational health psychology (Schonfeld & Chang, 2016), prompting questions about the underlying causes of these incidents.

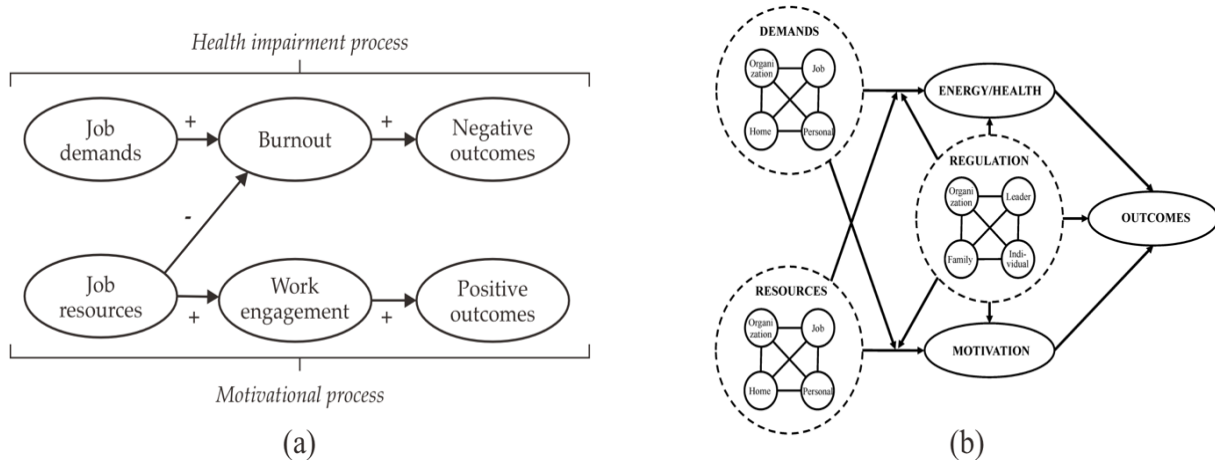
In the Special Region of Yogyakarta (DIY) province, 12 election officials died and 52 became ill, allegedly due to several factors, including work pressure and the officials' psychophysiological conditions and fatigue (Maharani, 2019). These officials managed 2,731,874 registered voters in five districts in DIY province with 11,781 voting stations (TPS) and 82,467 voting organizing groups (KPPS) (KPU Daerah Istimewa Yogyakarta (DIY), 2019). These figures suggest that there were around seven KPPS members at each TPS, each with many voters under their authority while they had to complete their job in limited work time, from 17 April 2019 (the voting date) to 22 May 2019 (the vote counting period). Furthermore, the intensified political situation has posed more uncertainty and ambiguity to the working condition of the election officials (CNN Indonesia, 2018; Komisi Pemilihan Umum, 2023). This context, regarded as a crisis condition, has substantial implications for the health condition of the workers (Demerouti & Bakker, 2023; Head, 2022).

Despite some scholarly attention given to the 2019 national elections incident (Ardipandanto, 2019; Istianda & Zastrawati, 2021; Latief et al., 2023), scant information exists regarding the actual working conditions of election officials and the subsequent impacts on their health and well-being. Indeed, scholars have called for further exploration into how various job demands and resources within a specific crisis scenario, like in such an electoral process, might influence worker health and well-being (Demerouti & Bakker, 2023). By taking the job demands-resources (JD-R) model perspective, this study aimed to elucidate the job characteristics, (i.e., demands and resources), experienced by the 2019 election officials vis-à-vis their psychological and physical reaction, aiming to offer insights pertinent to the forthcoming 2024 general election. Furthermore, this study contributes to occupational health psychology literature in the crisis context.

The JD-R model posits that every occupation is characterized by two primary elements: job demands and job resources (Bakker & Demerouti, 2007). Job demands encompass the physical, psychological, social, and organizational facets of a job that require sustained physical and/or psychological (cognitive and emotional) effort or skills (Demerouti et al., 2001). Conversely, job resources refer to the physical, psychological, social, and organizational aspects of a job that assist in managing various job demands (Bakker, 2011; Bakker & Demerouti, 2007). The expanded JD-R model further interprets job resources and demands not only in terms of specific job characteristics arising from the work context but also from broader organizational, individual, and family contexts (Demerouti & Bakker, 2023) (see [Figure 1](#)).

Figure 1

Job Demands-Resource (JD-R) Model a (Schaufeli, 2017) and Extended JD-R Model b (Demerouti & Bakker, 2023)



In the context of the 2019 Election, various aspects of the election officials' job indicated high job demands, limited time, and considerable performance pressures. Election officers were appointed by the General Election Commission (KPU) to ensure that the voting and vote counting processes were appropriately and transparently executed, from the preparation, the implementation, to the evaluation (post-implementation) stages (Komisi Pemilihan Umum, 2014). These challenges were further intensified by escalated political tensions prevailing at the time (CNN Indonesia, 2018; Komisi Pemilihan Umum, 2023). Such conditions with high job demands, according to the JD-R theoretical framework, are closely related to the health impairment process (Bakker & Demerouti, 2014; Demerouti & Bakker, 2023). JD-R explained that in this process, job demands are a determining factor for various detrimental outcomes related to physical and psychological health, including burnout and stress. Such health damaging outcomes can occur due to job demands (e.g., workload, emotional demands, role confusion) which are not balanced by adequate job resources (e.g., autonomy, feedback, role clarity) (Bakker & Demerouti, 2007; Demerouti & Bakker, 2023; Schaufeli, 2017). Therefore, the main variables in this psychological study of the fatality and illness of the 2019 election officials were job demands and job resources that are closely related to the stress they experienced as an outcome of doing their work.

Stress and individual well-being in the workplace are the main topics of concern in occupational health psychology (Schaufeli, 2017). Job stress, as a condition influenced by job demands and job resources (Bakker & Demerouti, 2007), is a condition that normally occurs. However, stress can have a negative impact on individuals (distress) if the level of (perceived) job demands is too high and is not balanced with the availability of adequate (perceived) job resources (Hobfoll, 2002; Jones & Fletcher, 1996; Wheaton & Montazer, 2010). Distress generally arises due to physical (such as fatigue, headaches, decreased immunity) and psychological (such as anxiety, anger, mental fatigue, or depression) reactions felt by individuals (Blanc et al., 2008).

Recent studies demonstrate the relationship between job demands and job resources and

physical and psychological distress experienced by individuals. A study conducted involving 255 teachers in Italy found that job demands in the form of disruptive student behavior and various service activities at school were positively related to the level of stress and burnout experienced by teachers. However, the existence of personal job resources in a classroom or institutional context can help reduce, or even eliminate, the negative impact of job demands on the stress experienced by teachers (Bottiani et al., 2019). Another study with a longitudinal design involving 297 workers in Italy showed that, over time, job demands are considered a risk factor that caused psychophysical tension in individuals as a stress reaction. On the other hand, job resources are a protective factor to reduce the impact of job demands (Falco et al., 2022). However, there are also studies that showed slightly different results regarding the relationship between job demands, job resources, and work stress. A study conducted in China involving 251 police officers showed that job demands (i.e., quantitative, emotional, skills) can increase the generalized stress response. Interestingly, job resources in the form of autonomy do not function as a suppressor of the negative impact of job demands. On the other hand, in work context, high job resources further strengthen the negative impact of job demands on stress reactions (Chen & Wu, 2022). This evidence suggests that, in general, work stress is positively related to the level of job demands. Meanwhile, job resources believed to reduce the negative impact of job demands on individual health do not necessarily apply to all work contexts. By referring to these findings, there is a big question regarding the health conditions (physical and psychological) of the 2019 election officials in relation to their job demands and job resources levels.

Referring to the theoretical framework of the JD-R model, this study aimed to understand the working conditions experienced by the 2019 election officials in the Special Region of Yogyakarta (DIY) province. In more detail, this study aimed to map (profile) the aspects of the work of the 2019 election officials in the form of job demands and job resources, as well as individual distress responses (physical and psychological) to their work. We hypothesize that more than a class will be formed from the indicators selected in this study, such as a class with high job demands, job resources and work-related distress or low job demands and job resources making high work-related distress. This study contributes to the occupational health psychology literature by providing an insightful analysis of the 2019 election officials' typology. This analysis is based on their score patterns across key indicators within the JD-R model including job demands, job resources, and work-related stress. In addition, this study contributes practically by providing recommendations regarding human resource management in the election context, particularly for the forthcoming 2024 Indonesian general election.

Method

Participants

A total of 212 election officials in DIY Province (65 women and 147 men with an age range of 18 to 73 years with mean = 43 years and $SD = 12.69$) filled out the survey we provided. We recruited the participants from all KPPS in DIY Province by considering their health conditions. Most of the participants (85%) were already engaged in other jobs while serving on the election committee,

indicating that their role in the KPPS was not their primary occupation. Additionally, over half of them (68%) had no prior experience with this type of work (refer to [Table 1](#)). These officials duties were: (1) managing all stages of the election, (2) handling the reception and distribution of voter lists, (3) verifying, consolidating, and declaring election outcomes, (4) preparing and submitting formal reports, (5) promoting the election process, (6) reviewing and reporting on the election's execution, and (7) performing additional duties as mandated by legal regulations (Komisi Pemilihan Umum, 2018).

Table 1
Demographic Statistics of Research Participants

Variables	<i>n</i>	%
Gender		
Male	147	69%
Female	65	31%
Employment status		
Employed	180	85%
Unemployed/retired	32	15%
Confirming illness		
No	180	85%
Yes	32	15%
Previous election experience		
Yes	67	32%
No	145	68%

The data was collected one week upon the 2019 Election vote counting process in DIY Province. The data collection was carried out from 28 May to 20 June 2019 by enumerators trained by the research team regarding how to collect data. The enumerator's role was to contact and visit the TPS representatives on the data collection list. When visiting the polling station, the enumerator asked the prospective participants' willingness to participate in the data collection process. After obtaining the participant's consent, the enumerator asked the participant about their health condition. If the participant was in good health and able to complete the survey, the enumerator handed the survey to the participant to fill out by themselves. Participants who stated that they were unwell but willing to be involved in the data collection process were assisted by enumerators and family members in completing the survey (see, [Table 1](#)).

Instruments

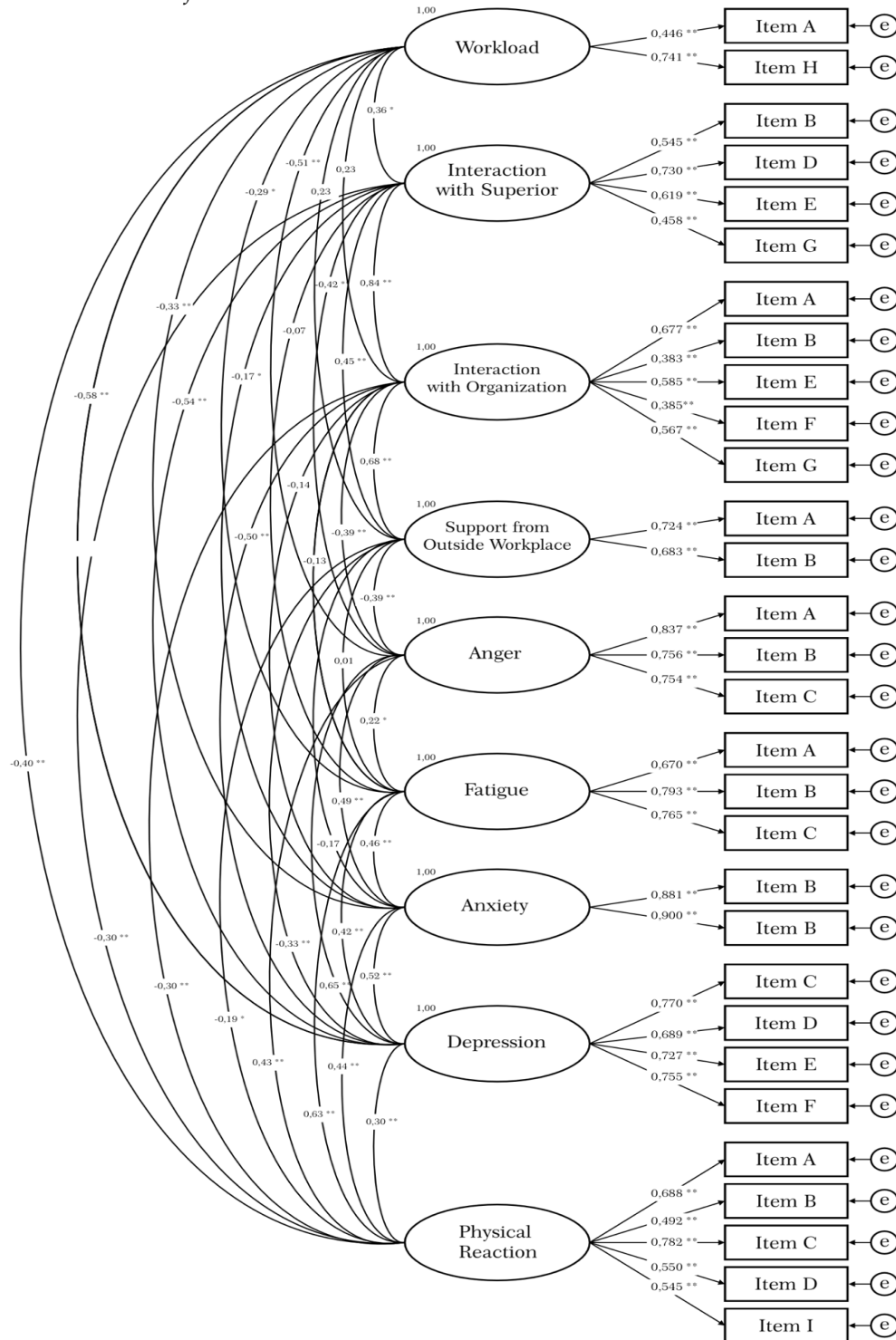
In this research, we utilized the New Brief Job Stress Questionnaire (NBJSQ) (Inoue et al., 2014), adapted into Bahasa Indonesia (Adi et al., 2022), to assess job demands, job resources, and work-related stress. We defined job demands specifically as the workload perceived by election officials. Moreover, in line with the JD-R extension model, we evaluated job resources by examining perceived social interactions (including interactions among officials, with supervisors, and with the election organization) and the availability of external organizational support (Demerouti & Bakker, 2023). These work characteristics are critical in influencing individuals' work-related stress, which

is measurable through physical and psychological symptoms such as anger, fatigue, anxiety, and depression (Adi et al., 2022; Inoue et al., 2014; Wheaton & Montazer, 2010). To ensure an accurate depiction of the work conditions, we tailored the questionnaire items to reflect the specific context of the work and election organization.

Preliminary Analysis

Before analyzing the data, we carried out model testing on the instrument used. This testing used Confirmatory Factor Analysis (CFA) to ensure that each item used in this research represents the underlying latent factor. We conducted the CFA using a robust maximum likelihood estimator (Huber, 1981) considering that the estimation results produce robust fit statistics and indices also standard error even though the assumption of item normality is not met for some items. The analysis results showed that the measurement model used in this instrument was supported by the field data. This can be seen from the chi-squared parameters of 815.988 ($df = 624; p < .01$), TLI and CFI of .930 and .917 ($> .90$; Hu and Bentler (1999) and RMSEA of .030 ($< .06$; Hu and Bentler (1999)). In addition, all items had factor loading values above the .30 criterion (Brown, 2015; Furr, 2022), ranging from .383 to .900 (see Figure 2), indicating that all items represent the underlying construct or latent variable. Then, each factor's scores were grouped into two categories, namely high and low. Scores below 0 were grouped as low category, while scores above or equal to 0 were grouped as high category. These two categories became the values for each indicator to be analyzed further.

Figure 2
Factor Structure of the Research Instrument



Data Analysis

To address the research goals centered on characterizing the 2019 election officials using their scores in the JD-R model parameters - job demands, job resources, and work-related stress conditions - we conducted data analysis using Jamovi software (The Jamovi Project, 2023). Our approach involved Latent Class Analysis (LCA), a technique used to discern subgroups or latent classes within a population that exhibit distinct characteristics or outcomes (Hagenaars & McCutcheon, 2002). LCA focuses on latent class or membership, an unseen group that influences how individuals respond to various questions or indicators (B. Muth'en & Muth'en, 2000). The outcome of this analysis will reveal distinct groups or classes characterized by unique scores on the indicators. Furthermore, this method employs categorical indicators in its analysis (Weller et al., 2020).

Table 2
Demographic Statistics of Research Participants (n = 212)

Indicator	Low		High	
	n	%	n	%
Job demand				
Workload	95	45	117	55
Job resources				
Interaction with Superior	72	34	140	66
Interaction with Organization	78	37	134	63
Support from Outside Workplace	90	42	122	58
Psychological Distress				
Anger	122	58	90	42
Fatigue	105	50	107	50
Anxiety	109	51	103	49
Depression	123	58	89	42
Physical Distress				
Physical Reaction	110	52	102	48

Table 2 shows the proportion of categories for each variable. While 55% of the participants' perceived job demands belonged to the high category, 45% belonged to the low category. In contrast, most participants (58% to 66%) perceived their job resources to be high. In terms of work-related distress, the table also shows a relatively balanced proportion in each of the types of work-related distress, including fatigue (50% low and 50% high), anxiety (51% low and 49% high), and physical reaction (52% low and 48% high).

Table 3
Evaluating Class Solution

Class	Log-likelihood	AIC	CAIC	BIC	Entropy	df	G ²	p
2	-1,017.427	2,072.855	2,155.630	2,136.630	.931	192	414.091	< .001
3	-980.269	2,018.538	2,144.879	2,115.879	.958	182	339.773	< .001
4	-947.237	1,972.475	2,142.382	2,103.382	.959	172	273.711	< .001
5	-930.078	1,958.155	2,171.628	2,122.628	.924	162	239.391	< .001

Note: AIC = Akaike Information Criteria, CAIC = Consistent Akaike Information Criteria, BIC = Bayesian Information Criteria, df = degrees of freedom.

The LCA analysis results (Table 3) showed that the lowest BIC value was in the model with four classes (2,103.382), implying that this 4-class model is the most recommended model to be used as the final model in this study. We used BIC based on the consideration that BIC is the most reliable parameter in LCA analysis (Weller et al., 2020). Yet, we instead chose a model with three classes with the consideration that, with three classes, there was no class with a class size of less than 5% (Shanahan et al., 2013). Besides, the entropy values between models with 4 and 3 categories were only slightly different, namely .958 and .959, respectively, both of which met the criteria above .80 (B. O. Muth'en, 2008) and were close to the ideal value of 1.00 (Celeux & Soromenho, 1996).

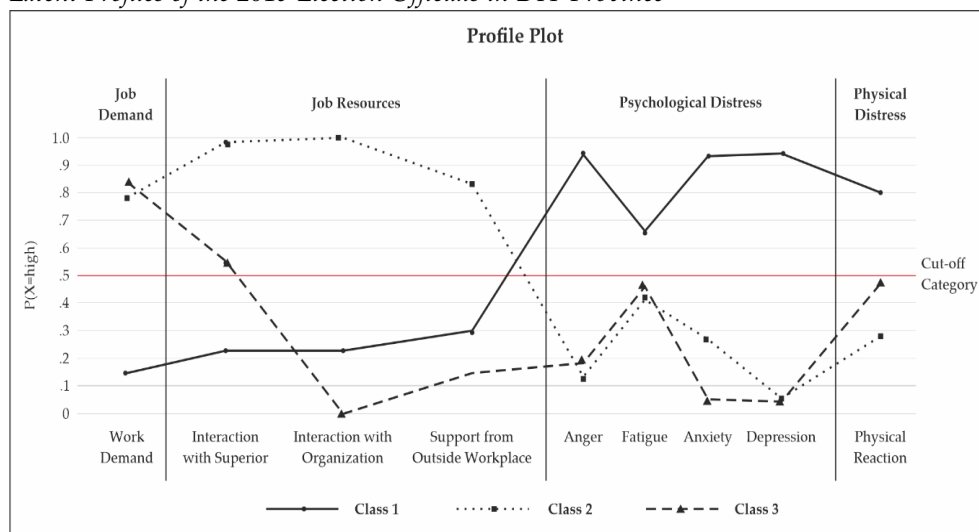
Class Profiles

The finding elicits that there are 3 classes formed with each characteristic (see Table 4). Of the three classes, it was found that 54.1% of the research participants belonged to the class 2. By grouping opportunities above 50% as a high group, it can be said that class 2 is characterized by high job demands (78.7%) and job resources (Interaction with Supervisor 98.2%, Interaction with Organization 100%, Support from outside Workplace 83.5%) but low in work-related distress both psychological (Anger 13.2%, Fatigue 41.0%, Anxiety 27.7%, Depression 5.6%) and physical distress (28.9%). This finding is interesting where individuals who feel they get a lot of job demands and are followed by abundant job resources can make individuals experience low distress. Another interesting finding is that classes 1 (35.1% of participants) and 3 (10.9% of participants) have characteristics that are quite different from the JD-R theory. Class 1 shows that the high distress experienced by participants is related to low job demand and low resources. Then, in class 3, it was found that high job demand and low job resources were associated with low distress experienced by participants (see Figure 2).

Table 4
Class Response Percentages Within Variables

Indicator	Class 1		Class 2		Class 3	
	Low	High	Low	High	Low	High
Class size	.351		.541		.109	
Job demand						
Workload	.845	.155	.213	.787	.163	.837
Job resources						
Interaction with Supervisor	.763	.237	.018	.982	.443	.557
Interaction with Organization	.766	.234	.000	1.000	1.000	.000
Support from outside workplace	.692	.308	.165	.835	.853	.147
Psychological distress						
Anger	.065	.935	.868	.132	.813	.187
Fatigue	.336	.664	.590	.410	.538	.462
Anxiety	.073	.927	.723	.277	.944	.056
Depression	.064	.936	.944	.056	.957	.043
Physical distress						
Physical Reaction	.196	.804	.711	.289	.521	.479

Figure 3
Latent Profiles of the 2019 Election Officials in DIY Province



Notes: $N = 212$. Figure 3 shows the characteristics of the three classes formed based on the score patterns on the nine indicators. Most participants (54.1%) belonged to class 2 characterized by high levels of job demands and job resources but had low psychological and physical work-related distress, followed by those belonging to class 1 with the characteristics of high job demands and high psychological and physical work-related distress but with low job resources. Finally, participants belonging to class 3 (10.9%) had the characteristics of high job demands but low in job resources and psychological and physical work-related distress.

Discussion

This study examined the working conditions experienced by the 2019 election officials in DIY from an occupational health psychology perspective. By mapping the election officers' job demands, job resources, and work-related stress reactions, this study produced a profile that describes the typology of 2019 election officers based on their score patterns on the indicators in the JD-R model. The finding of this study contributes to literature of occupational health psychology and provides implication for the forthcoming 2024 general election.

Nearly half of the 2019 election officers in DIY scored high on both psychological and physical distress (Table 2). Despite this prevalence, only a minority reported being ill (Table 1). However, it is crucial to note that such poor health conditions do not necessarily imply high job demands and low job resources. This is reflected in the pattern of the participants' responses regarding their experiences, which then formed three profile classes that describe high or low job demands, job resources, and psychological and physical distress.

The data analysis results show that more than half of the election officers belonged to class 2 by showing high job demands, high job resources, but tended to experience low psychological and physical work-related distress. This class is in accordance with the proportion of JD-R that poor health conditions (physical and psychological) commonly occur due to high job demands not balanced with adequate job resources (Bakker & Demerouti, 2007, 2014; Schaufeli, 2017). In line with previous studies regarding the role of job resources in suppressing the detrimental effects of job demands (Bottiani et al., 2019; Falco et al., 2022), this class showed that the participants do not experience much physical and psychological stress, despite high job demands. We suggest this is due to the existence of high job resources.

However, this study also shows intriguing findings related to classes 1 and 3. With a quite large proportion of participants (35% of the total participants), class 1 showed that the participants reported their job demands and job resources are relatively low. Yet they reported high levels of psychological and physical distress. This finding suggests that distress can occur regardless of how high the job demand is (in this case, the workload). In contrast, around 10% of the total participants reported high job demands with job resources that tended to be low, and low psychological stress and moderate physical stress. This result suggests that high job demands that are not balanced with high job resources (in this case, from inside and outside the election organization at the TPS) do not necessarily lead to high levels of distress. The results from these two profiles showed an unusual condition where the typical proportions according to the theoretical framework of the JD-R model do not apply (Bakker & Demerouti, 2017; Bakker & Demerouti, 2014). We can explain these intriguing findings in classes 1 and 3 with several arguments. According to the JD-R model (Bakker & Demerouti, 2017; Bakker & Demerouti, 2014), job demands form a risk factor that may lead to adverse psychological and physical health conditions, while job resources form a protective factor that suppresses these negative influences. Job resources are a determining factor in health and work motivation, particularly when job demands are high. However, empirical studies reveal that such interactions between job demand

and job resources do not apply to all types of job demands and job resources in all work contexts. Job demands can act as challenging or hindering that likely influence how individuals respond to these stressors. Perceived challenging job demands produce more positive emotions that will suppress negative stress reactions in individuals. On the other hand, perceived hindering job demands tend to give rise to negative stress reactions because of the negative emotions and experiences felt. Simply put, the stress response that emerges is influenced by how individuals interpret the demands of their job, and this interpretation can vary depending on the specific working environment (Bakker & Sanz-Vergel, 2013; Radstaak & Hennes, 2017).

This tendency also applies to job resources, which can sometimes cause distress in some individuals. A previous research study in police work contexts shows that, instead of suppressing the negative impact of job demands, a job resource in the form of autonomy strengthens the negative impact of job demands on police stress reactions (Chen & Wu, 2022). In the 2019 election officials, psychological and physical stress reactions may still appear even though the workload is not high. Conversely, stress reactions can also be low, even though the workload is high and social work resources are low. The election officials were gaining significant attention from various parties, including *Bawaslu* (the national election watch) and party officials overseeing the process, along with the general public. Moreover, the political and social tension was exceptionally high during that period (CNN Indonesia, 2018; Komisi Pemilihan Umum, 2023). This added a substantial burden on them in carrying out their duties posing other types of job demands (e.g. role conflict, pressure, emotional demands; Bakker and Demerouti (2014), despite the seemingly low job demands (i.e., in this case is workload). Furthermore, given that a majority of the participants juggled primary occupations alongside their roles in the election context, there could potentially be a spillover effect from their primary occupations, contributing additional demands to their responsibilities as KPPS officials (Demerouti & Bakker, 2023). Another potential explanation is that there might be other resources (e.g., autonomy, responsibility, role clarity) which played a crucial and influential role, yet were not examined in this study. This oversight includes the potential resources of prior experience as election officials, which might serve as job resources but was not accounted for in the job resources profile (Bakker & Demerouti, 2014).

An alternative explanation for the class 1 and 3 profiles is that it may have to do with the cognitive and affective biases when the participants completed the survey questionnaire. Bias may occur when individuals are asked to recall something they experienced in the past. Such a task requires more cognitive effort that can affect the accuracy in reporting the experience (Podsakoff et al., 2012). The accuracy can be further reduced if the memory triggers negative emotions (Xie et al., 2023). In this study context, such biases likely occurred because we asked the participants to report their experiences at least one week after the incident (retrospective bias). Another bias that likely occurred was negative memory bias. We can explain negative memory bias through self-concept and culture. Research by Wang (2001) found that individuals from collectivist cultural backgrounds tend to focus more on positive emotions and ignore negative memories compared to their counterparts from individualist cultural background groups. A social order with a collective cultural background and social harmony

can contribute to how individuals deal with negative memories (Wasti et al., 2021). Consistent with the aforementioned findings, participants in this research consisted of individuals from Indonesia who share a collectivist cultural orientation (Hofstede & Hofstede, 2005; Minkov & Kaasa, 2022) which showed a tendency to repress the negative experiences they had during their work as election officials.

This study makes several contributions to the occupational health psychology literature. First, generally, the findings from this study show that work health conditions (physical and psychological) have to do with the level of job demands and job resources. Job resources can function as a protective factor for health conditions from the adverse impact of excessive job demands. Second, specifically, we conducted this study in a specific work context, namely the work organization during the national election event. While national elections are a routine event, its implementation is incidental. The heightened tension observed in various media outlets during the 2019 election notably intensified the political climate (Helmi et al., 2020). Such an uncertain and ambiguous context, where the election officials were gaining significant attention amid elevated political tension, can be perceived as a crisis context that influenced unforeseen alterations in job characteristics. This encompassed unexpected changes in the level of job demands and the importance of job resources, both interplaying and impacting overall health conditions (Demerouti & Bakker, 2023). Thus, the impact of job demand and job resources explained by the JD-R model cannot always occur following the general principles in the theoretical framework. A special condition (boundary condition) like this needs to be studied further with a more comprehensive methodology to develop occupational health psychology literature.

Implications

This study shows that job resources are a vital protective factor for occupational health conditions. If high job demand is unavoidable, job resources need to be increased to anticipate adverse physical and psychological reactions to work-related stressors. In addition, it was possible that there were many aspects of job demands and job resources in the election organizations (i.e., TPS, KPSS) that interact with each other and impact the election officials' health conditions. Because of this crisis context, it is possible that the limited types of job resources available were insufficient to "protect" individuals from negative work stressors during the election. In this study, the social job resources were considered sufficient by some election officials, but insufficient for the others. Thus, it becomes imperative to optimize various job resources such as the knowledge, skills, and abilities of the election officials through a systemic approach. The election authorities/policymakers should prioritize specific qualifications (e.g., understanding, familiarity and/or experience in election administration) during the recruitment and selection process of the election officials. Additionally, the authorities should implement structured training programs for the election officials. Nevertheless, if the implementation of these strategies to provide essential job resources is unfeasible, policymakers should consider alleviating the burdensome workload imposed on the election officials. One potential approach could involve spacing out the general election process rather than conducting it simultaneously, thereby reducing the overwhelming (uncertain) job demands on these officials.

Conclusions

Election officials have a heavy job demands profile with high workload, limited working time, and high risk. Such a job profile has the potential to have a negative impact on the occupational health conditions (physical and psychological) of individuals. This study examines the patterns of relationships between job demands, job resources, and work-related stress reactions among the 2019 election officials. Job demands act as a risk factor for poor working health conditions, while job resources act as a protective factor against the negative impact. The availability of various types of adequate job resources can minimize the adverse risk of work stressors in the election context and maintain the election officials' occupational health and wellbeing.

Recommendations

This study has several limitations. First, measuring election officials' job demands and job abilities can show relationship patterns in the form of workload-based profiles representing job demands and job resources in the social environment. However, given the crisis context, the study could not describe thoroughly the complexity of the organizational context of election work with job demands other than workload, and with job resources other than the social resources. Future research needs to pay more attention to the various special conditions (boundary conditions) of the interactions between different types of job demands and job resources in influencing occupational health conditions. These special conditions can be determined by considering the specific context of the job, such as in the crisis context, and the type of job demands and job resources that are studied quantitatively.

Second, this study did not conduct path analysis or model testing regarding the magnitude and direction of the relationships between variables. However, this study can show the profile and proportion of respondents based on patterns formed from the relationships between the variables studied. To determine the exact mechanism of the relationships between variables, further research can design more detailed hypotheses and research models to be tested comprehensively with appropriate statistical analyses.

Third, this study was a responsive measure to the unexpected cases occurring among the 2019 election officials. Consequently, the assessments of individual experiences could only be carried out some time after the event, thereby risking cognitive and affective bias by the respondents. In the future, studies aiming to explore the profile of the relationship between job demands, job resources, and individual psychophysical reactions and test more complex models of relationships between variables should be conducted right after the event took place (without interruption). If psychological dynamics are a concern of the study, using a diary study design may be an appropriate option.

In addition, this research utilized LCA in assessing job demands, job resources, and work-related stress using the New Brief Job Stress Questionnaire. Nevertheless, certain aspects related to psychometric methodology in this study require improvement. The first limitation pertains to the concept of conditional probability, which remains unexplained in this study. Second, future research is encouraged to employ construct validity testing methods that are mathematically equivalent to LCA

(e.g., CFA). Therefore, we recommend that future research enhances the interpretation of LCA beyond the descriptive interpretation conducted in this study. Additionally, we suggest conducting factor determinacy testing to ensure a more accurate representation of latent scores through resulting factor scores.

Declarations

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Contributions

The first author contributed to the general conceptual ideas, data analysis, and interpretation of results, as well as the writing of the draft report in the introductory, theoretical basis, research method, and discussion of research results sections and was involved in the report revision process. The second author contributed to the writing of the draft report in the introductory, theoretical basis, research method, discussion of research results sections, and was involved in the report revision process. The third author was responsible for data analysis and contributed to the writing of the research method and research results sections and was also involved in the report revision process. The fourth, as the project manager of this research, played a role through their contribution to the general conceptual ideas, data analysis, and interpretation of results, as well as revising the research report. Finally, the fifth acted as the principal advisor of this research and provided guidance on the main conceptual ideas and the interpretation of the results and directed the course of the research report.

Conflict of Interests

All authors declare no conflict of interests in any kind in the implementation and the report writing of this research.

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