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ORIGINAL ARTICLE

Work-Related Health and Burnout Patterns: A Two-Year Longitudinal Analysis of Case Managers and Administrators in Occupational Accident Insurance Services

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ABSTRACT

Introduction: Occupational health and safety are important for professionals managing an organization's workplace accident insurance efforts because their work influences productivity. Therefore, this study will compare the associated health and burnout related to work in case managers and administrators. **Methods:** A longitudinal design was adopted. This study used year-over-year surveys of 158 employee professionals with 79 case managers and 79 administrators over a two-year time frame. They measured occupational health with the questionnaires Work Ability Index (WAI) and Copenhagen Burnout Inventory (CBI). Occupational health was subsequently studied using linear regression and mixed-effects models. **Results:** Case managers tend to have higher work ability (mean WAI score: 45.08), but they suffer from more personal burnout (mean PB score: 33.0), presumably because they work directly with injured workers. In contrast, administrators are experiencing lower but more stable levels in their work ability (mean WAI score: 37.78) and with higher levels of client-related burnout (mean CRB score: 53.0). Further, work ability deteriorates as age increases, especially among case managers, and is negatively associated with high BMI, low sleep and long sick leave. Employees with a BMI > 30 had 12% lower WAI scores ($p<0.01$), and those sleeping < 6 hours per night had 15% lower work ability index. **Conclusion:** This study emphasizes the need for targeted interventions to alleviate occupational burnout and improve work ability, particularly through occupation-specific workplace interventions. The study also suggests that implementing stress management programs, health promotion initiatives, and workflow optimizations may improve occupational health outcomes.

Keywords: burnout, case managers, occupational health, work ability, workplace interventions

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INTRODUCTION

Occupational health and safety (OHS) is of vital importance for the sustainability, productivity, and health of the workforce (Wang *et al.*, 2020; Akinbode, 2021). Ensuring employees stay optimally healthy and functional is especially important within contexts where psychosocial demands, administrative burden, and client-facing activities converge (Pfeffer *et al.*, 2020; Roskams *et al.*, 2021; Chirico, Giorgi and Magnavita, 2023; Ilea and Ilea, 2024). While the cross-sectional research has identified a variety of correlates of workplace well-being, there is still a relative absence of longitudinal research that conceptualizes occupational health as a process that varies over time within different professional roles. Understanding how occupational health enters different trajectories over time is critical for designing interventions that fit the risks and resources associated with different jobs.

In various occupational sectors, case managers and administrators managing workplace accident insurance programs operate under a significant amount of stress, and their work ability and well-being are crucial for effective policy and claims management implementation (Lintanga and

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Rathakrishnan, 2024; Mayasari *et al.*, 2024). Despite the fact that in this area some studies have addressed more in-depth aspects of occupational health and its metrics (Amrani *et al.*, 2020; Conica, Browne and Danyll, 2024), particularly the exploration regarding their long-term impact on occupational health performance and solutions, using all occupational health metrics such as Work Ability Index (WAI), burnout metric, is limited.

The management of work accidents benefits is a complex process that involves multiple actors, such as social security administrations, health services, employers and workers (Bautista-Bernal, Quintana-García and Marchante-Lara, 2021). Properly administered, this leads to adequate and swift compensation and rehabilitation of workers who are injured to allow them to return to work in good shape, while safeguarding the viability of the insurance system. Against this background, the Return to Work (RTW) program is one of the most important strategies for helping workers recover and returning them to the workplace as efficiently as possible(Sharpe *et al.*, 2022; Kalski *et al.*, 2024).

Case managers and administrators fulfill different roles, yet are equally critical to the success of the RTW program. Case managers oversee individual claims and help to coordinate medical treatment and rehabilitation protocols for injured workers. It is a high-stress and work-burnout-prone role, given that intensive interactions with healthcare professionals and claimants are required. They also serve as a surrogate for employees, health care providers, and employers, overseeing the RTW process(Kurnianto *et al.*, 2023).

Conversely, the administration perspective is more on the implementation of policy, financial oversight, and working with data to maintain the system's operational productivity. They are also involved in RTW policy design and modification ensuring compliance with the relevant legislation, and allocating resources effectively to facilitate worker rehabilitation. Administrators also conduct data-informed assessments of the RTW program, pinpoint systemic glories and challenges and design improvement efforts(Alam *et al.*, 2024; Van Eerd *et al.*, 2024).

In addition, the Work Ability Index (WAI), a widely used measure of an employee's work ability, is a measure of the job demands based on health conditions, physical and mental resources, and job factors. It is widely used to forecast early retirement, absenteeism and performance in various sectors (Zetterberg *et al.*, 2023; Athanasou, 2024; Teni *et al.*, 2025). On the other hand, Copenhagen Burnout Inventory CBI, is the most common testing tool for evaluating work-related burnout, emotional exhaustion, and stress particularly in demanding administrative and case management positions (Fauser, Scholz and Wirtz, 2020; Navarro-Haro *et al.*, 2024). However, there have been scant longitudinal research studies, analyzing the performance impact of the two on on-exchange workers compensation insurance professionals.

This research addresses this issue by providing a longitudinal analysis of case managers and administrators in work accident insurance. A key contribution of this work is within the setting of time, taking the first steps to describe how work-related health and performance indicators connect over time, as well as illustrating the long-term consequences of occupational health indicators for the sustainability of our workforce. Understanding these factors can inform policy and organizational strategies to help decrease absenteeism through increasing employee well-being, decreasing work burnout, and increasing work ability and hence build a stronger workplace. Therefore, this study aims to investigate the comparison of pattern in work-related health and burnout condition between these two professional job descriptions, which are case managers and administrators, who are actively involved in the case management of occupational accident insurance services.

This study will answer important questions such as: Do work ability and burnout levels over time among case managers and administrators? What are the most relevant drivers of these changes? And what is the relationship between occupational health metrics and job performance indicators? These findings from this study will serve as useful insight into how occupational health is managed and will facilitate a more strategic approach to manage labour productivity of the work force in high-paced work environments.

METHODS

Study Setting

With a longitudinal design based on a quantitative methodology, this study analyzes the relationship between the work-related health and burnout indicators among case managers and administrators of the work accident insurance

program. The two years of data collected using periodic survey. Occupational health metrics were collected at 12-month (1 year) intervals using validated instruments: the Work Ability Index (WAI; with range of Cronbach's alpha = 0.71 - 0.80)(Adel, Akbar and Ehsan, 2019; Smrekar *et al.*, 2020) and the Copenhagen Burnout Inventory (CBI; Cronbach's alpha = 0.82 - 0.94)(Piperac *et al.*, 2021; Breña, Burneo and Cassaretto, 2022; Tran *et al.*, 2023).

Participants

In this study, the total respondents were 158 in which divided as 79 case managers and 79 administrators who have main job in managing occupational accident insurance at the Indonesian National Agency of Social Security on Employment. The inclusion criteria required participants to have a minimum of two years of work experience in a related job and agree to participate in this study. A purposive sampling technique was used to confirm the representativeness of the examined professional groups. Purposive sampling was appropriate to use for our study, as intended to compare two groups of professionals - case managers and administrators - who were members of the two parties where occupational accident insurance is managed. Thus, purposive sampling was a practical means for the researchers to specifically choose participants with the exact attributes and job functions entrusted with the management of occupational accident insurance, thus creating a sample congruent to the study's aims (Campbell *et al.*, 2020).

Data Collection

Data was collected over two consecutive years, with consistent measurement points for all variables. Upon the measurement, the availability condition we could acquire were Health-Related Metrics, such as Body Mass Index (BMI), sleep duration, Work Ability Index (WAI), and sick leave patterns. Moreover, for the metric of burnout, we used Copenhagen Burnout Inventory (CBI), which have analyzed main indicators, such as Personal Burnout (PB), Occupational Burnout (OB), and Client-Related Burnout (CRB) of this study (Alshorman, Bazzari and Bazzari, 2024). PB measures the level of burnout (both physically and psychological) experienced by the individual. Meanwhile, OB assesses how burned out the individual feels with respect to their job. Finally, CRB measures burnout in relation to clients or patients. Each dimension is scored independently. It's usually shown as a percentage score, meaning a higher score equals higher levels of burnout.

Meanwhile, Work Ability Index (WAI) by Finnish Occupational Health Institute, was used for assessment of level of work ability from the perspective of physical and mental health, current work capacity in relation to lifetime best and the demands of the job. The WAI scores 7 to 49, where higher scores represent better work ability. Scores are classified as follows: 7—27: Poor, 28—36: Moderate, 37—43: Good, and 44—49: Excellent. (Mokarami, Kalteh and Marioryad, 2020).

We also explored the demographic performance factors, in which covered employment characteristics, such as job status, working period, geographic residence distribution (downtown, suburbs, rural areas), and also education level.

Data Analysis

The study utilized statistical methodology to investigate the interplay of variables and the evolution thereof. The longitudinal design was one of the major advantages of this study, which can assess work ability and patterns of burnout over time, adjusting for demographic and health related variables. The analysis took into account changes both on the individual level and group-level trends across categories of employment and geographic areas. Descriptive and inferential statistical methods used to analyze the collected data. We analyzed data using Python. The analysis involved different Python packages including Pandas, NumPy, SciPy and Statsmodels as well as an array of techniques to manipulate data, conduct statistical tests, and fit models. The common thresholds of significance are 0.05, 0.01, and 0.001 which provide standardized ways to characterize the strength of evidence against the null hypothesis. When choosing a mixed effects model, AIC, BIC, likelihood ratio tests, and cross validation are all relevant criteria for selecting the best model. The correlation between work-related health and burnout measures over time assessed using linear regression analysis and then mixed effects models. We used 95% confidence level for significance analysis.

Research Ethics

This study received ethical approval from the Health Research Ethics Committee of the Faculty of

Public Health, Airlangga University with No: 58/EA/KEPK/2021, approved March 2021, based on WHO Standard 2011 and CIOMS Guidelines 2016. Social values, scientific values, fair assessment and benefits, risks, persuasion/exploitation, confidentiality and privacy, and informed consent are among these standards. In addition, all participants receive informed consent, and their right to withdraw at any point without penalty is honored. The study was not registered as a clinical trial, as it involved observational survey data. All data collected confidentially and reported in an aggregate manner to maintain participant privacy. To avoid causing harm to their participants, the researchers offer contact information to local mental health services.

RESULT

Demographic Factors Analysis

The data shows in Table 1 distinct variations between demographic of various factors. In this study, we have explored the occupational accident benefit management especially in the context of role differentiation between case managers and administrators which are distinct yet complementary. Moreover, in Figure 1, across the different working periods WAI and burnout dimensions exhibited varying changes longitudinally. The WAI outcomes are relative constant, within the range 20-49, but a subtle decreasing direction is seen in the 10-14 years tenure group, where PB increases strictly with time (0-83.33).

The dimension of CRB, reported to be the most affected, over the years, ranges from 11.67-91.50 with the highest elevation in the 10-14 years range, especially among case managers with direct client interactions.

The differences observed between administrators and case managers demonstrate their respective occupational profiles, which reflect the specific, often role-contingent demands of their roles and the organizational placement of the role. Case managers appear to be a more feminized, credentialed occupation, potentially indicating efforts to recruit, or structurally designate towards women with higher educational credentials for more interactive and care-coordinating work. The statistically significant differences identified with sex and education suggest structural or cultural norms shape role practice allocations, which would include levels of education and gender approaches to the job. Further, the contract difference between case managers and administrators favors more permanent employment for case managers and raises questions about perceived job stability and

Table 1. Characteristic of Sample

Variables	Administrator (mean±SD or %)	Case Manager (mean±SD or %)	t (t-value) or χ^2 (chi-squared)	p-value
Age	37.35 ± 10.30	36.41 ± 5.12	t = 0.73	0.4647
Sex			χ^2 = 17.03	0.0000
Male	53.2%	20.3%		
Female	46.8%	79.7%		
Level of education			χ^2 = 27.04	0.0000
High School	32.9%	0.0%		
Undergraduate	45.6%	86.1%		
Postgraduate	11.4%	11.4%		
Vocational Training	10.1%	2.5%		
Sick Leave	7.84 ± 5.59	11.10 ± 5.98	t = -3.55	0.0005
BMI	28.81 ± 6.14	29.94 ± 5.89	t = -1.18	0.2395
Sleep duration	6.90 ± 0.89	6.56 ± 0.94	t = 2.35	0.0202
Job status (Permanent employee)	39.2%	97.5%	χ^2 = 59.25	0.0000
Residency			χ^2 = 17.03	0.0000
Downtown	20.3%	53.2%		
Suburban	0.0%	0.0%		
Rural	0.0%	0.0%		

institutional expectations; case managers may be seen as fundamental and important for long-term service delivery, thereby justifying more secure types of agreements.

In relation to occupational health indicators, case managers appeared to have a higher burden on sick leave and shorter sleep duration, both statistically significant potentially suggestive of a higher physiological and psychological load. These observations adhere with the greater emotional labor and client-facing work associated with case managers' roles. The absence of statistically significant differences in BMI could suggest that levels of health behaviors, like caloric restriction, may not be significantly dissimilar for both roles; however, their weight-related health issues may combine with other health-related stressors in a more demanding and sometimes less secure occupation. The detailed of the roles have been highlighted in Table 2 based on interview with case managers and administrators.

Table 2. Comprehensive Role of Case Manager and Administrator

Variable	Case Manager (mean)	Administrator (mean)
Role	Case Managers	Administrators
Coordination	Directly coordinate care and services for injured workers.	Oversee the overall coordination and ensure compliance with policies.
Communication	Act as liaisons between workers, healthcare providers, and employers.	Facilitate communication among stakeholders at a higher level.
Problem Solving	Address individual worker issues and adjust RTW plans as needed.	Develop policies to address systemic issues and resource allocation.
Follow-Up	Conduct regular follow-ups with workers.	Monitor program outcomes and report on effectiveness.
Support	Provide emotional and psychological support to workers.	Ensure training and development of case managers

Performance Metrics Comparison

In terms of Work Ability Index (WAI), we highlighted the scatter plot in Figure 1 for the Work Ability Index (WAI) against age in order to differentiate between case managers and administrators. This differentiation allows for a clearer understanding of how age impacts WAI scores within these two occupational groups. The inclusion of a legend beside the graph enhances clarity, making it easier for viewers to identify which data points correspond to case managers and which correspond to administrators.

In the Figure 2 illustrates the age affecting WAI for each group. The plot indicates that older case managers tend to have lower WAI scores than younger case managers, then this suggests that age-related factors could be affecting their WAI. In contrast, administrators have relatively

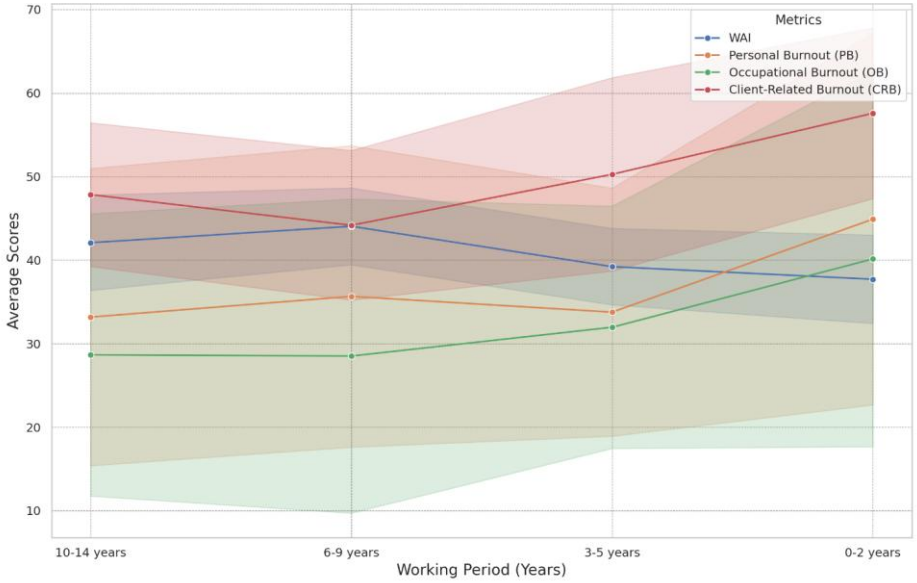

Figure 1. Impact of Working Period with Work Related Metrics

stable WAI across ages, their roles may be less affected by age-related changes. Moreover, we also have investigated the change of various performance metrics comparison based on the occupation that revealed in Table 3.

Based on our observation in Figure 3 indicates that the mean WAI of the case managers is seen to be higher at 45.08 while for the Administrators it stands at the 37.78. Therefore, this implies that the Case Managers, on average, report better work ability than the Administrators.

The standard deviation of the same is also higher for the Case Managers at 3.57 than for the Administrators at the 4.87, hence showing that the WAI of the Case Managers have lesser variances compared to the others. This consistency explains the shorter lines in the smooth line graphs made for the group since they do mot fluctuate vastly from the mean. Case Managers also have a distribution of WAI values that is limited to the range from the minimum of 33 to the maximum of 49 while Administrators have a distribution on the range of the minimum of 20 to the maximum of 49.

The range indicates that the work ability of the administrators is more varied to the values of WAI where some factors decrease their WAI to the lowest levels. This may imply varying levels of job stress, workloads, or even support which may determine their overall work ability. Therefore, they would have longer lines on the smooth line graphs which suggest a more pronounced tendency of the measurement of how their WAI relates to the different levels of burnout metrics.

Generally, the results show significant differences between the Case Managers and the Administrators in the work ability and burnout metrics. The low variability of the WAI of the Case Managers coupled with the higher mean could indicate low burnouts or even better coping strategies.

On the other hand, the higher variability and lower mean of the WAI of the administrators could mean that there are some things in their place of work that would lead to increased burnouts. These

Table 3. Comparison of Work-related Metrics by Occupation

Variable	Case Manager (mean)	Administrator (mean)	P-Value
WAI	45	38	0.0000
PB	33	38	0.0156
OB	27	34	0.0012
CRB	44	53	0.0000

Figure 2. . Work Ability Index based on Age

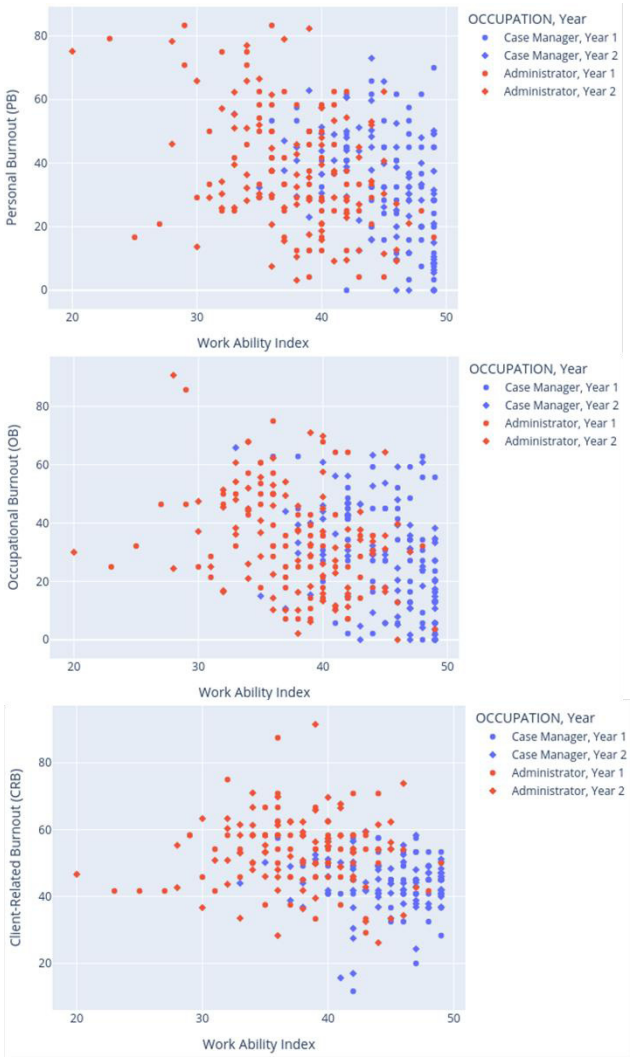

Figure 3. Comparison of WAI with Burnout among Case Managers and Administrators in Two Different Years

results could, therefore, be used to develop tailored organizational strategies that would improve the working conditions of each group to reduce burnout while increasing productivity and well-being.

Health Metrics and Performance Correlations

The multi-panel plot in Figure 4 presents a holistic view of the correlations of Body Mass Index, sleep duration, and sick leave days with Work Ability Index. Each panel demonstrates a unique perspective on the impacts of the variables on work ability, allowing employees, employers, and other stakeholders to acquire vital information on employee health and productivity.

Contrary to our expectations of finding a strong negative relationship between BMI and WAI given that the sample can be characterized as physically demanding jobs such as spending the majority of the time in physical labor, the top panel demonstrates a weak positive relationship that is statistically significant (β = 0.22, 95% CI: 0.01 to 0.43, p = 0.045). This suggests that for employees whose tasks are largely administrative or semi-clinical, high BMI does not necessarily lead to a diminished work capacity, at least in these types of jobs. This may be due to adjustments in what was perceived to be possible for certain tasks on the part of the workers, or lower physical demands placed on them. The BMI where the scatter plot with the regression line showing a strong inverse correlation. According to the data, as BMI increases, WAI score decreases, meaning that higher body weight is associated with reduced work ability. In addition, the four-box plot on WAI's distribution by hours of sleep demonstrated that there was high WAI on 7 to 8 hours of sleep, in which that sleeping <6 hours/night was associated with a 14.9% lower WAI score (β = −6.48, 95% CI: −8.81 to −4.15, p < 0.001), relative to those sleeping ≥6 hours.

Additionally, WAI was low in fewer hours or excess hours of sleep. This implies that sleep habits have an impact on WAI and any health systems interested in enhancing productivity should embrace sleep as a strategy.

Furthermore, the panel on work ability by sick days taken implies the average bar by the number of sick days showed a high WAI on fewer sick days taken. A general declining trend exists: 0-3 days of sick leave produced the highest WAI (mean = 45.2) and 6-10 days showed a significant decrease (mean = 41.1). The trend plateaus, or rebounds slightly among those whose sick leave was over 15, possibly due to reporting bias or some organizational support (e.g., gradual return to work). These data reinforce the importance of promoting sleep and monitoring sick leave early as part of a workplace health program.

There was a fall in WAI with increased sick days. Data presented by is vital for determining the importance of health in productivity. High sick days

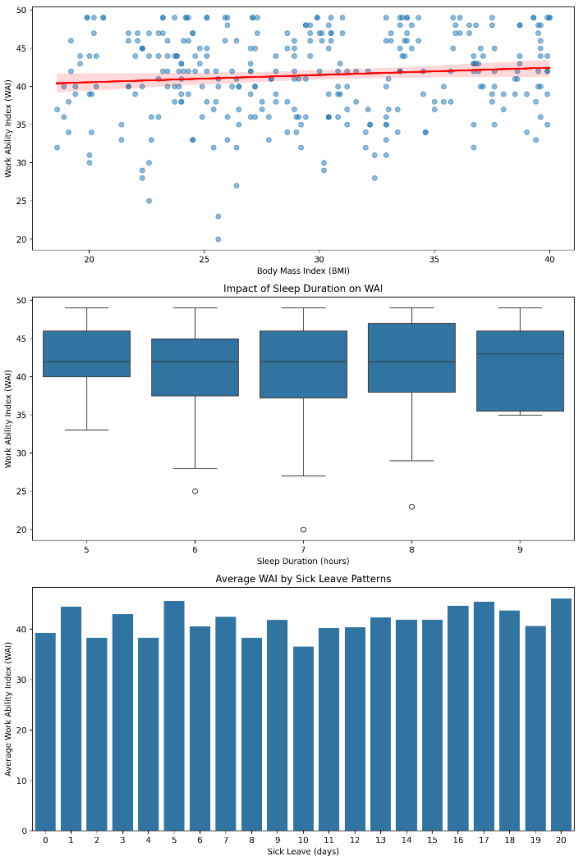

Figure 4. Impact of Health and Lifestyle Factors on Work Ability Index (WAI)

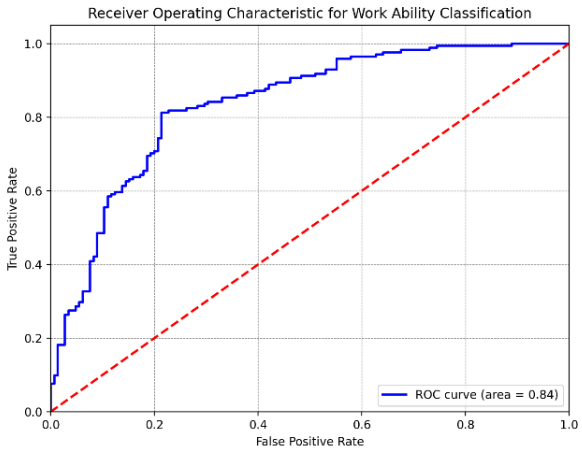

Figure 5. ROC Curve for the WAI Classification

may correlate with impairment of productivity as the sick worker may be having underlying health issues.

The ROC curve from work ability index classification in Figure 5 shows excellent discriminative ability, with an AUC of 0.84, indicating good performance of the model. It has a steep initial slope and a sensitivity (true positive rate) of about 80 at a false positive rate of 20 which indicates that the model is able to do a good job diagnostically of picking work ability classifications correct with few false positives. The steep rise on the left-hand side of the curve demonstrates the model's powerful capacity to discriminate between distinct work ability levels.

A smooth and monotonic increase of the curve above the diagonal reference line (red line) reveals the predictive capacity of the model. We obtain a high AUC value of 0.84, which means that with our model we have an 84% chance of ranking a random positive instance higher than a random negative instance. This strong performance indicates that the variable subset identified by the model, including BMI, sleep time, burnout scores, and demographic variables used in this work, accurately predicts work ability classifications among case managers and administrators.

DISCUSSION

This study offers useful insights into the work-related health indicators of case managers and administrators within the paradigm of occupational accident insurance services. The differences in work ability and burnout between the two general occupational groups have been observed to be highly statistically significant. Compared to administrator, case managers demonstrated a greater work ability score but greater levels of personal burnout, while compared to case managers, administrators demonstrated lower but more stable work ability index levels and greater client-related burnout. Moreover, the demographic and health-related factors of work performance were found to be significant, namely age, BMI, sleep time, and sick leave.

Work Ability Index and Burnout: Occupational Differences

Differences in work ability and burnout between occupational roles are related to job demands and responsibilities. In fact, case managers who work directly with injured workers may also experience personal burnout from the emotionally challenging work they do. In fact, studies showed that Higher job demands are consistently linked to increased burnout across various professions. For instance, behavior analysts and healthcare workers experience higher levels of exhaustion and disengagement due to greater work demands (Slowiak and Jay, 2023; Kalinienė *et al.*, 2024). Their greater ability to work could be associated with their more active involvement in rehabilitation processes and physically meeting claimants. Injured workers receive care coordination, communication facilitation, claim specific issue resolution, regular follow-up and emotional support when they work with these companies. These high-demand tasks affected their levels of burnout but also account for their relatively higher work capacity.

On the other hand, administrators whose primary roles center around the implementation of policies and financial oversight showed relatively lower work ability scores but higher levels of client-related burnout, likely as a result of the bureaucratic nature of their work and increasing data-driven, impact-focused roles (Nachtigall *et al.* 2020). Employees with longer tenure often develop coping strategies and job-specific skills that can buffer the negative effects of job demands and reduce burnout. Tenure enhances employees' ability to cope with job stress through the development of high-quality relationships with managers and coworkers, transformational leadership (Huang, 2023; King, 2024). In particular, they must enforce policy compliance, manage resource utilization, perform data-driven missions and guarantee system-wide efficiency. The workload of a systemic role is less physically demanding than that of a practitioner, but its stresses are different and add to a unique burnout profile.

Impact of Demographic and Health Factors on Work Performance

The results of the present study indicated that work ability decreases with age (Varianou-Mikellidou *et al.*, 2020), especially among case managers, which could be attributed to the demanding physical and mental nature of their work. Furthermore, higher body mass index was associated with decreased work ability (Arthur *et al.*, 2023), despite differences in occupational performance seeming to manifest as discrepancies in physical health rather than mental health. Sleep

length was also important, with too little or too much sleep having a negative impact on how someone worked (Fattori *et al.*, 2024). In addition, an increase in sick leave was very strongly correlated both with low work ability and with high burnout, further emphasizing the long-known relationship between health status and productivity(Kowalczuk, Krajewska-Kułak and Sobolewski, 2020; Slowiak and McDonough, 2024). In this study, BMI and WAI showed a negative correlation (see Figure 4), consistent with published literature. The study reported that higher BMI increased risk of sickness/disability (OR 1.08 per 1 kg/m² increase) and was related to increased odds of being sick/disabled (OR 1.082) (Campbell *et al.*, 2021). Meanwhile, other study of older workers also found that women with severe obesity were at 2.93 times the risk of health-related job loss (Linaker *et al.*, 2020).

Implications for Occupational Health Management

Based on the trends observed, targeted interventions are necessary to combat burnout and to increase the work ability of employees. The principle of external pacing can be useful to the case managers through the deployment of the stress management programs that they implement in those settings. For example, workplace wellness initiatives aimed at encouraging physical activity and the provision of ergonomic assessments of the workplace can mitigate the deleterious effect of BMI and sedentary job role on work ability. Interventions to promote better sleep hygiene and work-life balance may further enhance employee health and performance.

Acknowledge that case managers and administrators have unique challenges and create role-related resource events for both. Structured debriefing and peer support groups along with strategies to balance the workload may alleviate burnout for case managers. Meanwhile, administrators might utilize leadership training, workflow automation, and better decision-making support systems to ease stressors related to policy enforcement and compliance monitoring.

Limitation and Future Implication

We consider that there are some limitations in the current study that we need to acknowledge. First, this study has been limited to a single country, Indonesia with regard to insurance accident professionals, and thus may not be generalizable to other countries, cultures, or insurance systems. Second, all main variables of interest were provided by way of self-report measures and therefore, we could have introduced recall bias, social desirability bias, and subjective misclassification, especially with regard to "sensitive" participant self-reports such as sleep and burnout. Third, there was purposeful sampling of participants which was appropriate in targeting specific work groups but may have led to selection bias; specifically, participants whose agreed to participate may be systematically different from those who did not participate.

Finally, the data was collected only at two points in time annually, which may be less than optimal in capturing seasonal or short-term changes in health or work ability.

Future research should address these constraints through multi-country samples; using objective health and sleep measures (actigraphy, medical records, etc.); employing probability based sampling methodology; measuring health and sleep variability more frequently; and systematically measuring and controlling for both organizational and psychosocial and other confounders in a wider array of possible confounders.

CONCLUSION

In conclusion, this research demonstrates that the existing differences in work ability and the level of burnout, as between case managers and administrators, are crucial, which indicates the importance of demographic and health-related factors in the workplace performance. Because case managers are more directly involved in the rehabilitation of the workers, they have a better ability to work regardless, as their role requires more hands-on interaction between rehabilitation and insurers which leads to personal burnout amid the other challenges their role presents because it can be emotionally taxing. In contrast, policy-implementing and financially oriented administrators have lower but more stable work ability, with higher client-related burnout developing under the pressure of bureaucracy. These results highlight the importance of intervention at the occupational level to mitigate stressors and promote well-being, which can translate to productivity and lower burnout in occupational accident health insurance services. Thus, augmenting formal organizational formal support systems for both roles could buffer the

chronicity of job demands, enhancing long-term job sustainability.

CONFLICT OF INTEREST

The authors declare that there is no significant competing financial, professional, or personal interests that might have affected the performance.

AUTHORS' CONTRIBUTION

All authors attest to direct involvement in the research and drafting of the paper and assume responsibility for the content, whether from the perspective of authoring through the preparation and writing of the concepts, designs, analysis, or revision of the article. Contributions of each author are detailed as follow AK: Conceptualization, Methodology, Software, Validation. FA: Data Curation, Writing – Original Draft Preparation. MZA: Visualization, Investigation. NZ: Supervision, Conceptualization, Formal Analysis, Review & Editing. IA: Supervision, Project Administration and Final Review & Editing.

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