

Workplace Exposure and Impact of Service and Financial Loss due to Infectious Disease History

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Abstract

This study explores the impact of infectious diseases like COVID-19 on workplace exposure and financial losses. A survey of 373 workers in Malaysia revealed that noise and dust were the most common workplace hazards. Workers with paid sick leave or time off had a lower risk of infectious diseases, while those who were unpaid for family illness were more likely to have a history of infection. The study highlights the significant economic and service losses due to infectious diseases and stresses the need for further research to develop strategies to mitigate these impacts, particularly during pandemics.

Keywords: Infectious disease; Workplace exposure; Financial loss; Service loss

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1.0 Introduction

Infectious diseases including influenza and novel coronavirus disease 2019 (COVID-19), can be endemic in the workplace. Infectious diseases have a significantly harmful impact on the affected country's economy. It can cause significant economic costs at all levels, including society and individuals. The World Bank revealed that six massive outbreaks of considerably fatal zoonoses that occurred from 1997 to 2009 caused total losses of not less than \$80 billion US dollars. This is because when the workers in the company contract infectious diseases, they will be absent from work, which will be costly and affect the company's productivity. It could be even worse when employers do not have knowledge and do not practice safe workplace infection prevention and control measures (Martin et al., 2021).

When infectious disease events occur, self-isolation is the best way to curb the transmission of the contagious disease, and it is also cost-efficient compared to when we did not practice it (Gupta et al., 2005). Based on the study of the economic impact of Severe Acute Respiratory Syndrome (SARS) by Gupta and colleagues, self-isolation was found to save people in terms of lives and money. According to Holm (2020), employee can lose their monthly income if the employers are reluctant to pay their wages due to their absence from

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work due to an infectious disease event. Furthermore, employee's employment status is also at risk of termination because of their absence from work. Amid the SARS outbreak, many people lost their jobs. For instance, about 3 million individuals lost their jobs in the tourism industry. Thus, infectious diseases negatively impact employees financially (Martin et al., 2021; Smith et al., 2019).

In Malaysia, dengue fever remains one of the most prevalent infectious diseases, with an estimated 390 million cases occurring annually and almost a third presenting clinically (World Health Organization, 2021). A recent report indicated that Malaysia allocated a total of USD 88.9 million towards the management of dengue-related illness programmes (Zamzuri et al., 2025), representing the highest expenditure in the region, followed by Singapore (USD 76 million) and Cambodia (USD 4 million to USD 17 million) (Zamzuri et al., 2025). These figures underscore the substantial economic and healthcare burden posed by infectious diseases, leading to service disruption and financial loss at both individual and national levels. Nonetheless, the effects of the COVID-19 pandemic and its associated financial implications are unknown in Malaysia. In light of this context, the current study seeks to investigate the influence of infectious diseases, particularly COVID-19, on workplace exposures, business demands, and financial losses incurred during the pandemic.

2.0 Literature Review

Understanding the risks of workplace exposure to infectious disease and its impact on workers' health and business operations is crucial to protecting workers' health and maintaining business continuity. Occupational health research has focused on the risks contributing to environmental hazards such as dust, pathogens, and noise (Tulchinsky & Varavikova, 2014). Infectious diseases that affect the respiratory system are mainly found in healthcare, service, and manufacturing workplaces (de Perio et al., 2020).

Infectious diseases may affect workers' physical and mental health, which includes anxiety, depression and stress (Cheung et al., 2022). Prolonged exposure may result in long-term productivity loss due to the recovery period (Isham et al., 2021). Mental health concerns, in particular, have gained attention in recent years, with many studies linking workplace exposure to infectious diseases with higher rates of distress among employees (Burrowes et al., 2023). Meanwhile, the economic impact of infectious disease is evident in terms of financial and service losses caused by workers' absenteeism (Suhrccke et al., 2021). Employee absenteeism due to illness causes decreased productivity, increased operational costs and service delays or shutdowns (Strömberg et al., 2017). Hence, workplace policies play a significant role in controlling the impact of infectious diseases on workers and businesses. Paid sick leave, flexible work arrangements, and remote work options have shown promise in reducing the spread of diseases and minimising financial loss (Asfaw et al., 2017).

Despite expanding studies on the impact of infectious diseases on workers' health and business outcomes, gaps remain. Few studies have addressed the specific needs of certain occupational groups or industries, and there is limited research on the long-term effects of infectious disease exposure. Additionally, more research is needed on the effectiveness of different workplace policies and strategies in mitigating health and financial impacts. This underscores the need for further investigation into the best practices for managing infectious disease risks in the workplace.

In conclusion, existing literature emphasises infectious diseases' significant health and financial implications in occupational settings. The current study builds on these findings by exploring the effects of infectious disease history on workers' health and business operations. It highlights the need for continued research into effective workplace strategies for reducing these impacts. Addressing these challenges will be crucial in protecting workers and ensuring the sustainability of businesses, especially in the face of future health crises.

3.0 Methodology

2.1 Instruments

This cross-sectional study involved 373 respondents from 13 states and three federal territories in Malaysia. The inclusion criteria for selecting respondents in the survey require individuals to be 18 years or older, encompassing both males and females, with a minimum of one year of work experience in their current company. Additionally, they must demonstrate proficiency in either Malay or English language, both written and verbal, and express a voluntary willingness to participate. Conversely, the exclusion criteria exclude part-time workers, industrial trainees, and project consultants from the study.

The research was conducted between January and October 2023 across all 13 states and three federal territories in Malaysia. An online self-administered tool, hosted on the Google platform, was distributed to Human Resource Departments of companies nationwide. A, bearing the Department of Occupational Safety and Health (DOSH) headquarters' letterhead, was emailed to DOSH-registered companies. They were given a two-week window to distribute the tool to their workers, and several reminder emails were sent. Workers within the companies filled out the tool through convenient sampling.

A self-administered questionnaire was used. The questionnaire comprised three domains: A, the sociodemographic questionnaires, B, workplace exposure; and C, the impact on service and financial loss. The sociodemographic questionnaire determined the demographic characteristics, type of work and industry, smoking characteristics and infectious disease history. The workplace exposure domain contained three items: multiple responses and open-ended questions. The last domain, the impact on service and financial loss, contained nine items: employment status, saving sufficiency, organisation plan for employees who are out of work due to COVID-19, and pay policy of the workers.

2.2 Statistical analysis

Data was analyzed using IBM version 24. A descriptive analysis was performed to determine the characteristics of the variables studied, including workplace exposure and impact on service and financial loss. The results are described in numbers, percentages, tables and charts, with a 95% confidence interval. Inferential statistical analysis includes multiple logistic regression with infectious disease history as the dependent variable. The dependent variables have binary values, which are 0 and 1. Logistic regression was conducted to identify significant variables contributing to workplace and disease readiness. A value of $p < 0.05$ was considered statistically, with an alpha value of 0.05. The study findings are presented using p-values, crude odds ratio (COR) and adjusted odds ratio (AOR).

4.0 Findings

4.1 Descriptive

Table 1 shows the profile of workers in the study. Three hundred seventy-three workers from West and East Malaysia participated in this study. 75.6% of blue-collar workers and 24.4% of white-collar workers answered this survey. 59.8% of the workers were male, and 70.5% were married. The majority in this study (98.1%) were Malaysians, with approximately 67.8% being Malays.

In addition, 40.2% of the workers were degree holders. 57.4% of the workers from small and mid-size enterprises (SMEs) contributed to the study. 73.5% of the workers were from the manufacturing sector, with 95.2% of the workers from West Malaysia and 40.5% with 0 to 5 years of working experience. Most workers (93.3%) do not work in shifts, with 83.7% working 8 hours or less daily. For smoking status, 73.7% of the workers are non-smokers, 18.2% are smokers, and 9.12% of the smokers have quit smoking. Approximately 11.80% of the workers have tried 1 to 5 times to quit smoking, while approximately 1.6% have tried 6-10 times. A total of 1.1% of the workers have tried for more than 10 times. About 85.5% of the workers answered "not applicable" to this question because they do not smoke or have already quit (Table 1).

Table 1. Worker's Profile

Sociodemographic Characteristics	N (%)
Infectious Disease History	
Yes	92 (24.7)
No	281 (75.3)
Age	
18 – 23 year old	17 (4.6)
24 – 43 year old	260 (69.7)
44 – 63 year old	94 (25.2)
64 and above	2 (0.5)
Workers' Group	
Blue Collar (Employee)	282 (75.6)
White Collar (Employer)	91 (24.4)
Gender	
Male	223 (59.8)
Female	150 (40.2)
Marital Status	
Single	105 (28.2)
Married	263 (70.5)
Divorced	5 (1.3)
Citizenship	
Malaysian	366 (98.1)
Non-Malaysian	7 (1.9)
Ethnicity	
Malay	253 (67.8)
Chinese	60 (16.1)
Indian	32 (8.6)
Bumiputera Sarawak	10 (2.7)
Bumiputera Sabah	8 (2.1)
Others	10 (2.7)
Education Level	
Certificate	114 (30.6)
Diploma/Matriculation	85 (22.8)
Degree	150 (40.2)
Master and higher	21 (5.6)
PhD	0
Others	3 (0.8)

Types of Industry	
Industry Sizes	
Small and Mid-size Enterprise (SME)	214 (57.4)
Large Industry	159 (42.6)
Industry Sector	
Manufacturing	274 (73.5)
Services	17 (4.6)
Construction	75 (20.1)
Wholesale and Trade	1 (0.3)
Utilities	6 (1.5)
Government Facilities	0
Planting and Farming	0
State	
West Malaysia	355 (95.2)
East Malaysia	18 (4.8)
Years of Work Experience	
0 – 5 Years	151 (40.5)
6 – 15 Years	126 (33.8)
16 – 35 Years	94 (25.2)
More than 35 Years	2 (0.5)
Shift Work	
Yes	25 (6.7)
No	348 (93.3)
Total of Hours Working	
Less than 9 hours	312 (83.7)
9 – 15 hours	58 (15.6)
More than 15 hours	3 (0.7)
Smoker Status	
Yes	68 (18.2)
No	271 (72.7)
Already Quit	34 (9.1)
Age Started Smoking	
14 – 20 year old	49 (13.2)
21 – 34 year old	21 (5.6)
More than 34 year old	0
Not Applicable	303 (81.2)
Total of Cigarettes Smoked	
Less than 5	17 (4.6)
5 – 15	46 (12.3)
More than 15	5 (1.3)
Not Applicable	305 (81.8)
Category Age Started Smoking	
14 – 20 year old	48 (12.8)
21 – 34 year old	20 (5.4)
Not Applicable	305 (81.8)
Attempt to Quit Smoking	
Yes	54 (14.5)
No	319 (85.5)
Number of Attempts to Quit Smoking	
1 – 5 times	44 (11.8)
6 – 10 times	6 (1.6)
More than 10 times	4 (1.1)
Not Applicable	319 (85.5)

4.2 Results of the Workplace Exposure Questionnaire

Figure 1 shows the bar chart of the types of hazard exposure in the workplace. The highest exposure was noise and dust, with workers reporting that their workplace was exposed to noise (55.8%) and 208 workers exposed to dust (56%). This is followed by

exposure to ergonomics and vibration, which were recorded at 143 (38.3%) and 11 (30.3%), respectively. Only 14 respondents, 3.8% of them, agree that their workplace is exposed to mould (Figure 1).

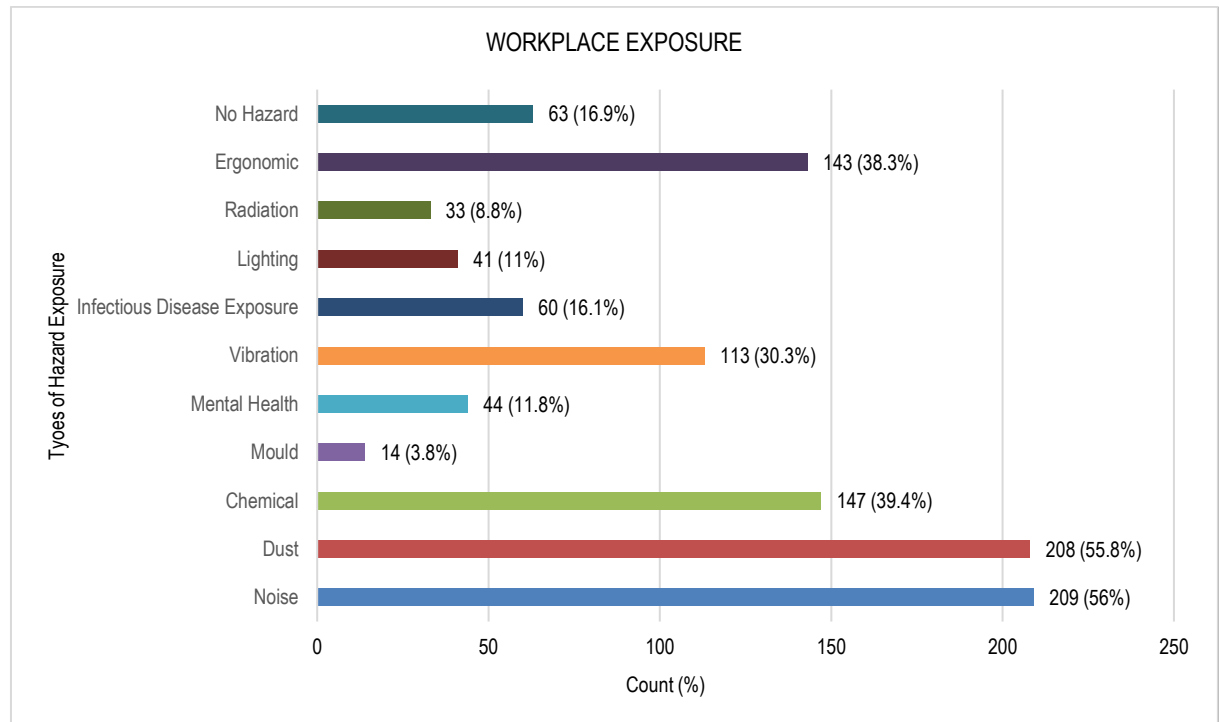


Fig. 1: Types of hazard exposure in workplace

4.3 Results of the Impact of Service and Financial Loss Questionnaire

Figure 2 shows the employment status of workers, with the majority of workers who contributed to this study working for full days as required (91.7%). About 11 (3%) and 10 (2.7%) workers had full-pay leave and worked from home, respectively. Meanwhile, 7 (1.9%) of the workers work as required, with reduced pay. This is followed by 2 (0.5%) and 1 (0.3%) of the workers leave on reduced pay and retrenched, respectively.

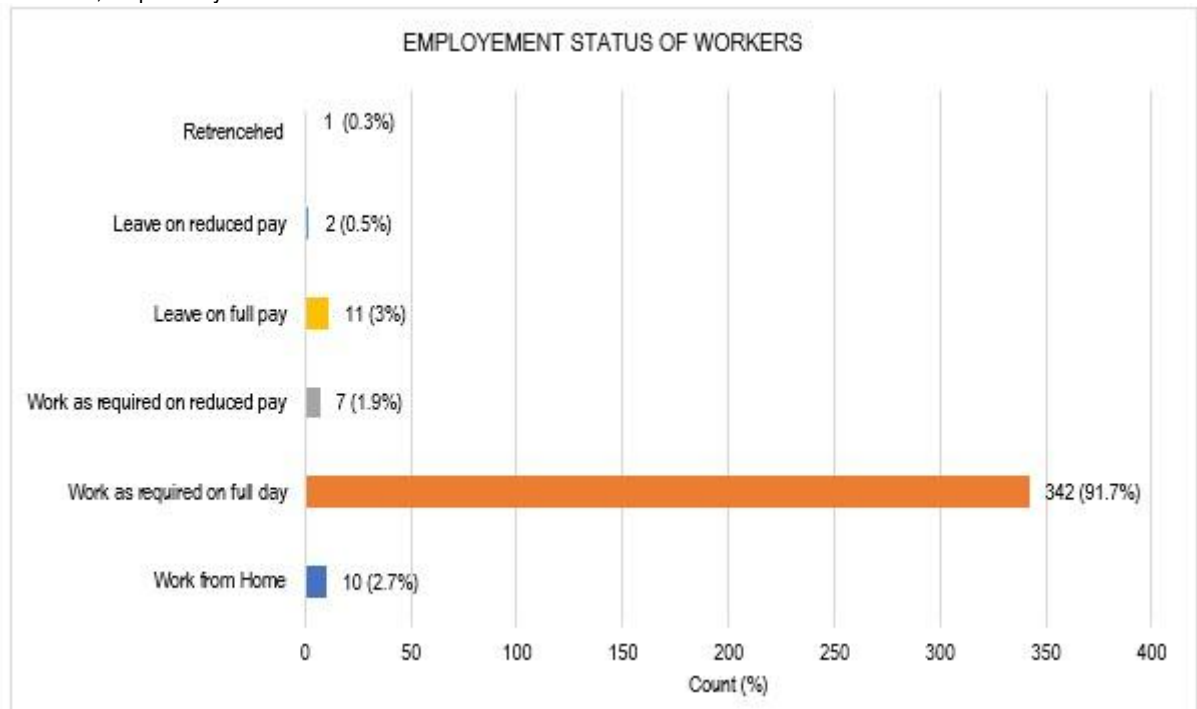


Fig. 2: Employment Status of Workers

Figure 3 shows the pie chart showing the employee status of workers. About 283 (75.9%) were private employees, while 43 (11.53%) were employers. 28 (7.5%) of the workers were multinational company employees. About 10 (2.7%) and 9 (2.4%) workers work at government-linked companies and are self-employed, respectively.

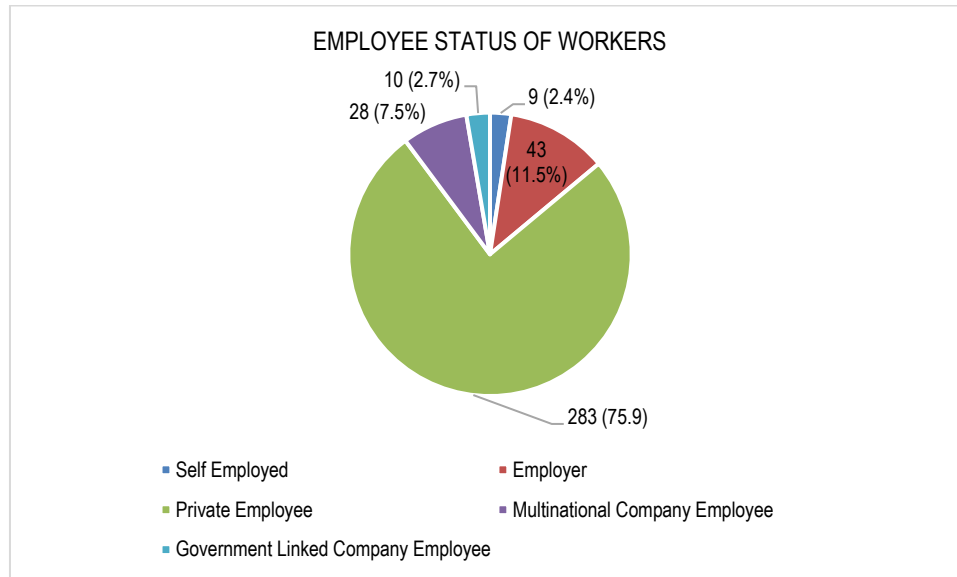


Fig. 3: Employee status of workers

Table 2 shows the descriptive analysis for COVID-19 exposure. The workers were asked if an employee is out of work due to COVID-19 exposure but is on self-quarantine and not ill, whether their organisation currently plans to do salary continuation, instruct self-insured disability insurer to provide benefits during those periods, and do they aid the employee to receive workers compensation in those state. 208 (55.8%) of the workers agreed that the companies offer salary continuation. A total of 142 (38.1%) of the workers said that their organisation instructed self-insured disability insurers to provide benefits during this period, and 206 (55.2%) agreed that they assist the employee in receiving workers' compensation in the state.

Table 2. Descriptive Analysis for COVID-19 Exposure

Items	Action Taken		No Action Taken. But Planned Actions		No Action Taken or Planned	
	N	%	N	%	N	%
If an employee is out of work due to COVID-19 exposure but is on self-quarantine and not ill, does your organization currently on plan to do any of the following?						
1. Provide salary continuation?	208	55.8	69	18.5	96	25.7
2. Instruct self-insured disability insurer to provide benefits during this period?	142	38.1	65	17.4	166	44.5
3. Provide assistance to the employee to receive workers compensation, if available for this indication in the state?	206	55.2	51	13.7	116	31.1

Table 3: Descriptive Analysis for Pay Policy of Workers

Items	Paid in full		Paid a portion of usual wages		Allowed to use sick days or other pay time-off		Not paid for time not worked		Others	
	N	%	N	%	N	%	N	%	N	%
What is your pay policy of a worker who is out of work due to this epidemic for the following reasons?										
1. Due to COVID-19 exposure, without illness?	253	67.8	14	3.8	54	14.5	34	9.1	18	4.8
2. Due to COVID-19 Illness of a family member?	225	60.3	17	4.6	63	16.9	40	10.7	28	7.5
3. Due to COVID-19 illness?	257	68.9	17	4.6	53	14.2	27	7.2	19	5.1

Table 3 shows the descriptive analysis of the pay policy of a worker during the pandemic. The workers were asked what their pay policy is if they were out of work due to this pandemic for COVID-19 exposure without illness, to a family member, or for COVID-19 illness reasons. 253 (67.8%) of the workers were paid in full if they were out of work due to COVID-19 exposure, while 257 (68.9%) for COVID-19 illness reasons. About 225 (60.3%) of the workers were paid in full if they were out of work because of the COVID-19 illness of a family member.

4.4 Relationship between Workplace Exposure and Impact on Service and Financial Loss with Infectious Disease History

Table 4 shows the multivariable logistic regression of workplace exposure and its impact on service and financial loss with infectious disease history. Workers exposed to vibration in the workplace were less likely to have an infectious disease history than workers exposed; the adjusted OR (95% CI) was 0.36 (0.18 – 0.70). Workers who are paid a portion of usual wages due to COVID-19 without illness are less likely to have an infectious disease history than those paid in full; the adjusted OR (95% CI) was 0.04 (0.03 – 0.55). Workers who were also allowed to use sick days or other pay time-off were less likely to have an infectious disease history than workers paid in full; the adjusted OR (95% CI) was 0.12 (0.02 – 0.56).

The workers who were allowed to use sick days or other pay time-off due to the COVID-19 illness of a family member were 16 times more likely to have an infectious disease history as compared to the workers who were paid in full; the adjusted OR (95% CI) were 16.77 (2.05 – 137.36). The workers who were not paid for time off due to the COVID-19 illness of a family member were 11 times more likely to have an infectious disease history as compared to the workers who were paid in full; the adjusted OR (95% CI) was 11.51 (1.48 – 89.65). This study also found that the workers who were allowed to use sick days or other pay time-off due to decreasing business demand were less likely to have infectious disease history as compared to the workers who were paid in full; the adjusted OR (95% CI) were 0.18 (0.05 – 0.62).

Table 4: Multivariable Logistic Regression of Workplace Exposure and Impact on Service and Financial Loss with Infectious Disease History

Items	p-Value	Crude OR (95%)	p-Value	Adjusted OR (95% CI)
Workplace Exposure				
Noise	0.73	0.92 (0.57 – 1.48)	0.63	1.22 (0.54 – 2.73)
Dust	0.51	0.85 (0.53 – 1.38)	0.47	0.76 (0.35 – 1.62)
Chemical	0.42	1.22 (0.75 – 1.99)	0.57	1.23 (0.61 – 2.47)
Mould	0.33	0.58 (0.19 – 1.76)	0.96	0.96 (0.21 – 4.43)
Mental Health	0.43	0.75 (0.38 – 1.51)	0.48	0.72 (0.28 – 1.82)
Vibration	0.01	0.52 (0.32 – 0.85)	0	0.36 (0.18 – 0.70)
Infectious Disease	0.95	0.98 (0.52 – 1.86)	0.33	1.53 (0.65 – 3.65)
Lighting	0.27	0.67 (0.33 – 1.36)	0.52	0.73 (0.28 – 1.89)
Radiation	0.04	3.55 (1.06 – 11.91)	0.21	2.43 (0.61 – 0.78)
Ergonomic	0.67	0.90 (0.56 – 1.46)	0.9	0.96 (0.49 – 1.87)
No Hazard	0.42	1.32 (0.68 – 2.55)	0.72	0.84 (0.32 – 2.20)
Impact on Service and Financial Loss				
Employment Status				
Work as required on full day		1		1
Work from Home	0.73	1.32 (0.28 – 6.32)	0.87	1.16 (0.20 – 6.67)
Work as required on reduced pay	1	N/A	1	N/A
Leave on full pay	0.84	0.87 (0.23 – 3.35)	0.59	0.67 (0.15 – 2/93)
Leave on reduced pay	0.43	0.33 (0.02 – 5.25)	0.97	1.06 (0.04 – 26.78)
Retrenched	1	N/A	1	N/A
Employment Status				
Private Employee		1		1
Self-Employed	0.34	2.67 (0.33 – 21.61)	0.19	5.92 (0.42 – 83.48)
Employer	0.6	0.83 (0.41 – 1.69)	0.65	0.81 (0.33 – 2.00)
Multinational Company Employee	0.62	0.81 (0.34 – 1.89)	0.54	0.73 (0.26 – 2.02)
Government-Linked Company Employee	0.3	3.01 (0.38 – 24.09)	0.22	4.00 (0.44 – 36.08)
COVID-19 Exposure				
Provide Salary Continuation				
Action Taken		1		1
No Action Taken, But Planned Actions	0.13	0.64 (0.36 – 1.13)	0.07	0.46 (0.20 – 1.07)
No Action Taken or Planned	0.85	1.05 (0.61 – 1.81)	0.95	1.03 (2.18)
Instruct self-insured disability insurer to provide benefits during this period				
Action Taken		1		1
No Action Taken, But Planned Actions	0.2	1.56 (0.78 – 3.05)	0.22	1.89 (0.69 – 5.21)
No Action Taken or Planned	0.46	0.84 (0.52 – 1.34)	0.54	0.79 (0.37 – 1.68)
Provide assistance to the employee to receive workers compensation, if available for this indication in the state				
Action Taken		1		1
No Action Taken, But Planned Actions	0.58	1.22 (0.60 – 2.49)	0.67	1.24 (0.46 – 3.35)
No Action Taken or Planned	0.5	1.20 (0.71 – 2.01)	0.31	1.46 (0.71 – 3.01)
Pay Policy				
Due to COVID-19 exposure, without illness				
Paid in full		1		1
Paid a portion of usual wages	0.12	0.42 (0.14 – 1.24)	0.02	0.04 (0.03 – 0.55)

Allowed to use sick days or other pay time-off	0.36	0.74 (0.39 – 1.41)	0.01	0.12 (0.02 – 0.56)
Not paid for time not worked	0.28	0.66 (0.31 – 1.41)	0.09	0.13 (0.01 – 1.39)
Others	0.424	1.67 (0.47 – 5.91)	0.91	1.16 (0.08 – 16.21)
Due to COVID-19 illness of a family member				
Paid in full		1		1
Paid a portion of usual wages	0.91	1.07 (0.34 – 3.36)	0.05	11.62 (0.96 – 140.83)
Allowed to use sick days or other paid time-off	0.42	1.32 (0.68 – 2.55)	0.01	16.77 (2.05 – 137.36)
Not paid for time not worked	0.96	0.98 (0.46 – 2.09)	0.02	11.51 (1.48 – 89.65)
Others	0.16	0.56 (0.25 – 1.26)	0.07	0.26 (0.06 – 1.09)
Due to COVID-19 illness?				
Paid in full		1		1
Paid a portion of usual wages	0.3	0.58 (0.21 – 1.63)	0.87	0.83 (0.01 – 7.12)
Allowed to use sick days or other paid time-off	0.98	1.01 (0.51 – 1.98)	0.79	1.28 (0.21 – 7.76)
Not paid for time not worked	0.54	0.76 (0.32 – 1.80)	0.68	1.55 (0.20 – 12.27)
Others	0.36	1.79 (0.51 – 6.29)	0.22	5.05 (0.38 – 66.63)
Due to decreasing business demand?				
Paid in full		1		1
Paid a portion of usual wages	0.85	1.10 (0.43 – 2.82)	0.67	1.41 (0.29 – 6.72)
Allowed to use sick days or other paid time-off	0.06	0.48 (0.23 – 1.04)	0.01	0.18 (0.05 – 0.62)
Not paid for time not worked	0.28	0.63 (0.27 – 1.46)	0.05	0.26 (0.07 – 1.02)
Others	0.68	0.87 (0.44 – 1.72)	0.82	0.89 (0.33 – 2.44)

5.0 Discussion

Based on the study, most respondents were paid in full if they were out of work due to COVID-19 illness. A previous study found that companies such as Microsoft pay their employees regular wages despite the reduced work hours due to infectious diseases. Thus, it is the role of human resources management/ compensation and benefits professionals of that company to take care of the welfare of the employees. Non-governmental organisations such as the World Health Organisation (WHO) and the International Labour Organisation (ILO), as well as governments, also have a role to play in the welfare of employees (Martin et al., 2021).

Our findings indicate no significant association between COVID-19 compensation and salary continuation. This may be attributed Malaysia's proactive financial interventions aimed at mitigating the economic impact of the pandemic. One such initiative was the establishment of the COVID-19 fund, designed to provide financial assistance to quarantined individuals affected by the virus (Md-Shah et al., 2020). The government and private sectors contributed an initial allocation of RM 1 million, supplemented by donations from non-governmental organisations (NGOs) and individuals (Md-Shah et al., 2020). These funds were utilized to support affected individuals and procure critical medical equipment for healthcare facilities.

Additionally, the Inland Revenue Board (IRB) introduced tax deductions for monetary and in-kind donations, incentivising contributions to support vulnerable communities and enhance societal resilience (The Star, 2020). The Ministry of Health and Tenaga Nasional Berhad (TNB) collaborated with corporate entities, government-linked companies (GLCs) and other organisations in Malaysia to mobilise financial assistance, which was directed towards replenishing medical supplies essential for pandemic containment efforts. The Economic Action Council allocated RM 500 million to recruit healthcare personnel, procure ventilators and provide personal protective equipment (PPE) (Yusof, 2020).

Furthermore, the PRIHATIN Package, amounting to RM 250 billion, was launched to support micro, small and medium-sized enterprises struggling to retain their workforce (Md-Shah et al., 2020). This initiative aimed to safeguard both livelihoods and business continuity, thereby contributing to broader economic stability (Ministry of Finance, 2020). To further alleviate financial burdens, RM10 billion was allocated for a one-off payment to support B40 and M40 households, alongside a special fund of RM4.5 billion dedicated to SME micro-entrepreneurs. This included special relief facilities (RM3 billion), enhanced SME financing access (RM1 billion), and micro-credit schemes (RM500 million) (Ministry of Finance, 2020). Additionally, RM 500 in one-time assistance was distributed to retired civil servants in April 2020 (Ministry of Finance, 2020). These extensive financial measures collectively provided substantial economic support to both industries and workers, enabling businesses to sustain operations despite the challenges posed by the pandemic.

The pay policy emerged as a significant factor in this study. Workers who received full pay experienced a markedly lower incidence of COVID-19 compared to those who were not granted full pay and were required to take unpaid leave due to their infections or those of family members. This finding may be attributed to proactive workplace measures, including disease surveillance and risk reduction strategies, which curtail COVID-19 transmission among workers. Beyond providing comprehensive education for employees, workplace infection control measures such as regular disinfection protocols, ample cleaning supplies, engineering controls, clear signages, and consideration of human factors to enhance compliance in these companies (Keyes et al., 2022). Consequently, with these organisational control strategies in place, employers were more confident in maintaining full pay policies for workers who contracted infectious diseases despite the inherent financial implications. This reflects a dual approach to implementing optimal workplace health practices while ensuring post-exposure isolation protocols are aligned with national public health guidelines.

The implications of this research extend beyond the immediate context of the study, offering valuable insights for shaping long-term workforce welfare and economic resilience strategies. The findings emphasize the critical role of employer pay policies in reducing

COVID-19 transmission by encouraging compliance with health measures, suggesting that paid sick leave and full-pay policies during health crises can be effective tools for both public health and worker protection. Additionally, the study highlights the success of coordinated financial interventions, such as Malaysia's COVID-19 fund and the PRIHATIN package, which can serve as models for other countries in managing future public health emergencies. These insights advocate for the integration of health-based human resource policies, where compensation, occupational health, and proactive safety measures work together to strengthen organisational and societal resilience, with broader relevance to international labour standards and policymaking.

6.0 Conclusion, Limitations and Recommendations

This study proved that infectious diseases harm workers in terms of the loss of service and financial resources. As a direct consequence of this, it is of utmost importance to conduct additional studies to identify the approach that will be most successful in reducing and mitigating the impact of infectious diseases on employees, particularly during the pandemic. However, several limitations should be considered. For example, this study was only conducted within Malaysia, which is limited to other regions with different workplace environments, healthcare systems, and economic contexts. In addition, the study also focuses on COVID-19 and may not represent the impact of other infectious diseases. Hence, it is recommended that future research also include the history of other infectious diseases such as influenza, dengue and leptospirosis.

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Paper Contribution to Related Field of Study

The paper contributes to occupational and public health by investigating the link between infectious disease history and the resulting impact on workers' health and businesses. By examining factors such as depression, anxiety, stress, and general health with workplace exposure, the study provides valuable insights into how workplace policies, such as paid sick leave, influence the spread of infectious diseases and financial consequences. Additionally, the study's use of logistic regression analysis highlights significant findings on the reduced likelihood of infectious disease history among workers with access to paid time off, adding new evidence for future workplace health policies, especially in the context of pandemic response and prevention. This paper expands the current understanding of the socio-economic impact of infectious diseases on businesses, urging further research to develop strategies to mitigate these effects.

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