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A study on Covid-19 towards Employees Mental Health

Lee Loh Joo[1], Farhana Tahmida Newaz[2], Benjamin Chan Yin Fah[3], Jugindar Singh [4], Li Qi[5]

[1,2,3] Graduate School of Business, Universiti Tun Abdul Razak (UNIRAZAK), Malaysia
[4]School of Management, Asia Pacific University of Technology & Innovation (APU), Malaysia
[5]Guangzhou City Construction College

ABSTRACT

The research identifies the negative impact of COVID-19 on an individual's mental health. Stressors include perception of safety, threat and risk of contagion, infobesity versus the unknown, quarantine and confinement, stigma and social exclusion as well as financial loss and job insecurity. Furthermore, three dimensions of moderating factors have been identified: organizational, institutional and individual factors. A total of 642 working adults have involved in this study conveniently in Selangor, Malaysia. In addition, a list of recommendations has been presented to mitigate the impact of COVID-19 on the employee's mental health, during and after the outbreak, from a human resource management perspective.

1.0 Introduction

On March 11, 2020, the World Health Organization (WHO) declared coronavirus (COVID-19) a pandemic, a global disease outbreak threatening the whole planet. COVID-19 is an infectious disease caused by coronavirus. 'Coronaviruses (CoV) are a large family of viruses that cause illness ranging from the common cold to more severe diseases such as Middle East Respiratory Syndrome (MERS-CoV) and Severe Acute Respiratory Syndrome (SARS-CoV). A novel coronavirus (nCoV) is a new strain that has not been previously identified in humans.' (WHO, 2020a). They are transmitted between animals and humans. They include fever, dry cough, shortness of breath and breathing difficulties, tiredness with possible symptoms of aches and pains, nasal congestion, runny nose, sore throat or diarrhea (WHO, 2020a)

Faced with this epidemiological catastrophe, individuals have presented anxiety-related behaviours, translated into a significant shortage of sanitisers, medical masks and toilet paper. This suggests that the coronavirus is not only a physical health risk, but it also weighs heavily on the mental health of individuals. The objectives of this paper are to examine COVID-19 impact on employees' mental health in organizations.

2.0 Research objective and its significant of study

Even before Covid-19, certain features contribute to an employees' mental illness, the Covid-19 is no doubt added to this issue. Uncertain prognoses, looming severe shortages of resources for testing and treatment and for protecting responders and health care providers from infection, the imposition of unfamiliar public health measures that infringe on personal freedoms, large and growing financial losses, and conflicting messages from authorities are among the major stressors that undoubtedly will contribute to widespread emotional distress and increased risk for psychiatric illness associated with Covid-19.

Public health emergencies may affect the health, safety, and well-being of both individuals (causing, for example, insecurity, confusion, emotional isolation, and stigma) and communities (owing to economic loss, work and school closures, inadequate resources for medical response, and deficient

distribution of necessities). These effects may translate into a range of emotional reactions (such as distress or psychiatric conditions), unhealthy behaviours (such as excessive substance use), and non-compliance with public health directives (such as home confinement and vaccination) in people who contract the disease and in the general population. Extensive research in disaster mental health has established that emotional distress is ubiquitous in affected populations — a finding certain to be echoed in populations affected by the Covid-19 pandemic.

In this paper examine two mental health outcomes: psychological distress and major depression that can result from a pandemic or an epidemic outbreak and how managers can reduce the risks.

The objectives of this research are to:

- Investigate whether there is a positive link between Covid-19 and employees' mental illness
- Examine the effect of occupational role impact on the potency of the stressors
- Create a bridge between epidemiology, psychology and human resource management

3.0 Research Method

A pandemic influenza question module was developed to determine each person's reaction towards the stressors. The methodology includes questions on health behaviours, health status, mental health conditions, as well as the demographics of the respondents and the households. The target sample is any working adult. Stressors include perception of safety, threat and risk of contagion, infobesity versus the unknown, quarantine and confinement, stigma and social exclusion as well as financial loss and job insecurity.

The pandemic influenza survey consists of questions regarding how employees cope up with stress in the entire Covid-19 period. The first section of the survey asked questions regarding the demographic characteristic of the respondents. The second part of the survey is the subject of this papers, asking question regarding how each type of stressors has more impact on the respondent, it calculates all the 5 stressors mentioned above towards the respondents. All responses were coded on a five-point Likert-scale, where 1 meant "strongly disagree" and 5 meant "strongly agree". The third part is a GAD-7, PHQ-9 scaling method used to analyze the respondents' stress level.

The IES is used to measure the psychological response to traumatic stressors. It is a self-reported 17-item questionnaire. Scores 60 are high. The IES subscale shows high consistency. Test–re-test for the total score was r=0.93 over a 1-week interval. Correlations were fair to moderate, but statistically significant with measures such as the Mississippi scale (MS) and the Minnesota Multiphasic Personality Inventory Post-Traumatic Stress Disorder scale (Horowitz et al, 1979). The IES has 92.3% sensitivity and 64.2% specificity. In this study, an IES score ≥60 indicates the presence of post-traumatic stress symptoms (Neal et al, 1994). The questionnaire aims to collect respondents' changes in life priorities and ways of coping. This self-reported questionnaire, which had not gone through a reliability or validity check, was developed because there were none available to specifically measure changes in life priorities and coping. It has 17 items on a 5-point scale, ranging from strongly disagree to strongly agree. It consists of two subscales: one looking at the changes in life priorities resulting from Covid-19 and the other finding out what coping methods are used to handle the emotional stress caused by Covid-19.

The Patient Health Questionnaire 9-item depression scale (PHQ-9) and 7-item Generalized Anxiety Disorder scale (GAD-7) are among the best validated and most commonly used depression and anxiety measures, respectively. They have been used in hundreds of research studies, incorporated into numerous clinical practice guidelines, and adopted by a variety of medical and mental health care practice settings. In our research, we adopted GAD-7 and PHQ-9 to examine the conditions of mental health.

The PHQ-9 and GAD-7 are standardized measures used to monitor clinical outcomes as part of Efficacy's Clinical Governance strategy. These are increasingly used in robust mental health research to indicate a diagnosis, a classification of severity and outcome monitoring within national CBT therapy services. The GAD-7 is a measurement for Anxiety Disorders and the PHQ-9 is a

measurement for depression. The PHQ-9 and GAD-7 are designed to facilitate the recognition for depressive disorders and anxiety disorders respectively. These are the national standard measures routinely used by GP's, therapists and psychiatrists as screening tools.
All analyses were performed using SPSS 11.0 (SPSS Inc, Illinois). Descriptive of the IES, GAD and PHQ scores were presented using mean (standard deviation) range and median. A factor analysis was performed to cluster the coping strategies and life's priorities during the Covid-19 situation. Finally, logistic regression analysis was performed to determine predictors (the reduced factors for the coping strategies and changes in priorities determined from the factor analysis) indicative of severe psychiatric symptoms or post-traumatic stress disorder. Statistical significance was set at $P<0.05$.

4.0 Results

The survey received a total of 642 participants, with an average of (32.82±6.41) years old, 136 male participants(21.18%), 506 female participants(78.81%), among them 205(31.93) with working experience less than 5 years, 325(50.62%) more than 5 years, and 112(17.45) more than 10 years working experience. As for their education level, 125(19.47%) master and above, 284(44.24%) undergraduates, 233(36.29%) diploma and below.
The test result shows 29.44% have encountered anxiety while 36.45% have depression. Working experience, education levels, the stress level and current personal health would affect the participant's mental health, there is statistical significance in the difference ($P>0.05$).

Table 1: Participants' Demographic Data and Mental Conditions

	Sample N=642	Anxiety (GAD-7 >4)			Depression (PHQ-9>4)		
		Count	x^2	P	Count	x^2	P
Gender			0.414	0.520		0.082	0.774
Male	136(21.18)	37(27.21)			51(37.5)		
Female	506(78.81)	162(30.03)			183(36.17)		
Age			0.996	0.608		2.109	
18-25	43(6.70)	15(34.88)			0.348		
26-45	563(87.69)	162(28.77)			20(45.51)		
46-65	36(5.61)	12(33.33)			202(35.87)		
					12(33.33)		
Working Experience			21.044			18.021	0.000
Junior<5 years	205(31.93)	0.000			59(28.78)		
Senior>5 years	325(50.62)	40(19.51)			116(35.69)		
Expert>10 years	112(17.45)	100(30.77)			59(52.58)		
		49(43.75)					
Education Level			9.000	0.011		9.306	
Master and above	125(19.47)	26(20.80)			0.000		
Undergraduate	284(44.24)	80(28.17)			31(24.80)		
Diploma and below	233(36.29)	83(25.62)			109(38.38)		
					94(40.34)		
Stress Level (Reflect of Stressors in Scores)			86.087			56.551	0.000
		0.000					
	56(8.72)				7(12.50)		
Not worry(<20)	342(53.27)	4(7.14)			96(29.07)		
Slightly worry(21-35)	58(9.03)	69(20.18)			29(50.00)		
		23(39.66)					

Moderately worry (36-45)	121(18.85)	48(39.67)	64(52.89)	
Really worry (46-55)	65(10.12)	45(69.23)	38(58.46)	
Extremely worry (>56)				
Health Status		41.233	43.601	0.000
Good	545(84.89)	0.000	171(31.38)	
Normal	89(13.86)	134(24.59)	56(62.92)	
Deteriorate	6(0.93)	50(56.18)	6(100.00)	
Bad	2(0.31)	4(66.67)	1(50.00)	
		1(50.00)		

Note: the comparison of Stress Level and Demographic Data, 1. Anxiety measures P<0.05, 2. Depression measures P<0.05

The anxiety was mostly due to the stressors caused by Covid-19 and their current health status, while their working experience is the buffer (P<0.05). The education level has no connection with the anxiety measures (Table 2). Stressors due to Covid-19 and health status(P<0.05) is the main cause of depression, with the working experience as the buffer (P<0.05). The educational level has no significant connection with the depression measures (Table3).

Table 2: Logistic Regression for Binary Outcomes (Anxiety)

Method	B	SE	Wald	OR	P	95%CI
Working Experience			12.63		0.002	
(1)	-1.01	0.28	12.62	0.37	0.005	0.21~0.64
(2)	-0.54	0.25	4.64	0.59	0.031	0.36~0.95
Stress Level	0.62	0.08	59.26	1.86	0.000	1.59~4.36
Health Status	1.04	0.22	22.67	2.84	0.000	1.85~4.36

Note: Using Working Experience, Expert as reference, creating 2 dummy variables, (1): Junior =1, Non Junior = 0, (2): Senior = 1, Non Senior = 0

Table 3: Logistic Regression for Binary Outcomes (Depression)

Method	B	SE	Wald	OR	P	95%CI
Working Experience			11.93		0.003	
(1)	-0.86	0.26	10.92	0.37	0.001	0.25~0.70
(2)	-0.70	0.24	8.66	0.42	0.003	0.31~0.79
Stress Level	0.47	0.08	38.62	0.50	0.000	1.38~1.85
Health Status	1.15	0.23	26.00	3.16	0.000	2.03~4.91

Note: Using Working Experience, Expert as reference, creating 2 dummy variables, (1): Junior =1, Non Junior = 0, (2): Senior = 1, Non Senior = 0

The hypothesis in this study focus on the relationship between stressors (independent variable) and employees' mental condition. In the model, employees' mental health is the dependent variable and their working experience is the mediator. All these variables were measured by the working adults' responses. Each structural path of the model represents a possible relationship between the two variables and can be analyzed for significance. The path coefficient may be considered equivalent to a regression coefficient (β) and measures the unidirectional relationship between two constructs. As shown by the tables, under Covid-19 the public has been tested with anxiety 29.44% and depression 36.45%.

The finding indicates a significant impact of the stressors to the employees. In addition to the biological health and safety of the general population as well as health care professionals, a stream of research has also addressed potential threats to the mental/psychological health and domestic safety challenges posed by the COVID-19 crisis. It is clear that psychological well-being and physical safety are intrinsically interconnected and cannot be reasonably categorized as fully separate safety dimensions. Severe depression and anxiety can lead to self-harm and even suicide and domestic violence, which all affect the physical well-being of individuals. Nevertheless, the focus of studies in this stream is on the indirect mental health impacts of this global epidemic rather than the biological and clinical aspects. Disease outbreaks not only disrupt basic life activities and impede economic growth; they can also elicit both acute and long-term effects on individuals' well-being. In other words, the toll on individuals is not just physical and financial, but emotional as well. Many studies have consistently found relationships between the occurrence of infectious disease outbreaks and a host of psychological and behavioural consequences. Among the negative psychological consequences that have been most frequently reported are greater incidence of depression and psychological distress, worry, functional impairment, anxiety about being infected, and reduced quality of life (and subjective well-being. In terms of behavioural consequences, exposure to outbreaks also resulted in preventive behaviours such as improved hygienic practices, seeking medical assistance and engaging in social distancing and isolation. The above psychological and behavioural consequences are experienced by the broader workforce but perhaps more acutely by essential workers. In studies focusing on health care workers, they often report concerns about the (non) availability of personal protective equipment (PPE), personal safety, vaccine availability, caregiving responsibilities at home, and prioritizing the well-being of family members.

Psychological distress also occurs as a result of mitigation strategies (e.g., social distancing, home containment, and travel restrictions) aimed to prevent the spread of the disease. For example, in a study of health care workers in a treatment facility during the SARS outbreak, Maunder et al. (2003) reported incidents of professional isolation arising from the use of protective masks and observance of non-physical contact with coworkers reduced morale among health care workers, and refusal to work among administrative and professional staff. Bai et al. (2004) investigated reactions of health care workers and professional staff shortly after 57 health care workers were quarantined due to the SARS epidemic. Results revealed that 20% of the participants reported feeling stigmatized, ostracized and rejected in their neighbourhoods due to their hospital work, while 9% expressed reluctance to return to work or had thoughts of quitting their job. Beyond those in the health care sector, in response to disease outbreaks, individuals in many organizations and industries have to endure harsh workplace conditions such as limited availability of social and work support, increased work demands, irregular work hours, inadequate work benefits, and poor access to healthcare. These challenging work conditions often increase general health complaints such as fatigue, upset stomach, sleeping difficulties and headaches. Additionally, school closures and suspension of religious activities arising from social distancing measures further exacerbated these adverse psychological difficulties and contributed to serious financial strain. Taken as a whole, these studies suggest that disease outbreaks can have pervasive consequences for mental health and well-being across the workforce. The finding of the study indicates the partial moderating effect of working experiences towards the relationship between stressors and mental health. This is possibly due to the higher working experience the more stress the employees are bearing, thus bringing pressure to perform in the workplace. Employees who start to feel the "pressure to perform" can get caught in a downward spiral of increasing effort to meet rising expectations with no increase in job satisfaction. The relentless requirement to work at optimum performance takes its toll in job dissatisfaction, employee turnover, reduced efficiency, illness and even death.

5.0 Conclusion

Having a perceived sense of control reduced perceived risk and available social support were important in the health and wellbeing of the staff during the Covid-19 crisis. Hence, clear directives and disease information, as well as being able to ventilate and voice their concerns, are important in empowering staff and in turn, improving their ability to cope. Making all protective measures to all employees did not just protect them physically – it made them feel safer. The sense of control and the perceived risk level appears to be the actual determinants of emotional impact, despite the actual risk level.

Employees in a safe and supportive environment feel better and are healthier, which in turn leads to reduced absenteeism, enhanced motivation, improved productivity and a positive organization's image. The prevention of occupational accidents and diseases, the promotion of healthy working life and the building of a preventive culture is a shared responsibility of governments, employers and workers, health professionals and societies as a whole.

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