

# PANDEMIC OF COVID- 19: KNOWLEDGE, BEHAVIOURAL PRACTICES, ATTITUDE AND STRESS AMONG MALAYSIAN ADULTS

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## Abstract

Covid-19 Pandemic has detrimental effects on psychological health around the world. The consequences of Covid-19 related to mental health are essential to be implicit and resolute accordingly. The perception, behaviour and attitude toward of Covid-19 and stress were measured during the movement control period in Malaysia. A qualitative online cross-sectional survey was conducted among adults (n=304) during the movement control order in Malaysia. The participant included (Male=124, Female=180) from all the states of Malaysia. Attitude towards Covid-19 virus, and stress test scores and whether there was an interaction between gender and marital status, a multivariate analysis of variance was conducted. The interaction was also statistically significant of gender and marital status for Knowledge related to the Covid-19 virus with Wilks'  $\Lambda = .917$ ,  $F(1, 300) = 6.06$ ,  $p < .05$ , multivariate  $\eta^2 = .020$ , for Covid-19 Prevention Practices with Wilks'  $\Lambda = .917$ ,  $F(1, 300) = 12.24$ ,  $p < .001$ , multivariate  $\eta^2 = .039$ , and for Attitude Towards Covid-19 virus with Wilks'  $\Lambda = .917$ ,  $F(1, 300) = 19.58$ ,  $p < .001$ , multivariate  $\eta^2 = .061$ . The Univariate effects indicate that effects of Knowledge related to the Covid-19 virus and Covid-19 Prevention Practices with gender and marital status was statistically significant. The results indicate that Malaysian adults responded to Covid-19 related knowledge, preventive practices and attitude were reported differently between gender and marital status. The study has implication to understand the Covid-19 related knowledge, behaviour and attitude in relation with stress. The study directs the further explorations in the understanding of Covid-19 related knowledge, behaviour, attitude and stress among adults.

**Keywords:** pandemic, knowledge, behavior, stress, attitude, adults.

## INTRODUCTION

The pandemic of Covid-19 has impacted significantly in psychological perspectives across the globe. This deadly virus which is originated from Wuhan, China has caused thousands of verified cases, and increase in death tolls "[1]". This alarming phenomenon caught the attention of many researchers to explore psychological aspects, behaviour, knowledge, and attitude towards the pandemic.

Meanwhile, in China, "[2]" surveyed the wellbeing and prosperity was reported significantly disturbed among the community facing directly or indirectly the consequences of Covid-19 breakthrough. Mental health outcomes effected on bodily fitness, emotional withdrawal, and reduced life gratification level. The prompt effect of the epidemic on the emotional well-being of Chinese "[3]" reflected stressful impact with the feelings of anxiety among adults differently related to gender and marital status. Stress has remarkably affected psychological prosperity of this population by declining emotional stability and well-being "[4]". Stress is leading to

other psychological issues, by increasing anxiety, level of depression and substance abuse issues among the residents by lowering the psychological prosperity during the Covid-19 Pandemic “[5]”. A longitudinal study “[6]” which was conducted during the first outbreak as observed pandemic peak in the most countries, revealed demographics survey, symptoms awareness, knowledge, attitudes and precautionary measure against Covid-19, findings revealed that there significant effect of mental health issues, specifically stress related to knowledge, attitudes and preventive behaviours among adults, which indicated that long term effects as pandemic is evolved.

The characteristic of behaviours towards preventive measure as disconnected social gatherings, social barriers, work and study from home, cancelled traveling, online adoption of activities, caused stress related to implementation and adaptation of the measure, effected all ages and genders across the globe “[7]”. Although, changes in job mode from workplace to work-at-home and loss of jobs are the main factors to cause stress and changes in lifestyle behaviour for married and unmarried adults differently “[3]”. To adopt the safety and preventive measure to stay home and avoid engaging outside activities are significant practices which has contributed differently towards the mental health consequences to respond and handle “[8]”.

Knowledge, attitude, and practices to curb the spread of Covid-19 are the most effective measures, but changes in the lifestyle and activities for among the community is causing mental health issues prevalence, stress is more common response. The social distancing, isolation have affected stress related symptoms among the adults in most of the countries. The measure to adopts the online working system is significant challenge for married people with children, as the same time isolation and quarantining contributed significantly to mental health stressors, those staying alone “[3]”. A campaign with five key steps “[9]” for people to adhere to protect their health in line with WHO guidance, focused on hand washing, coughing etiquette, not touching your face, physical distance and staying home if they have any symptoms has induced stress with intrusive thoughts and fear [10]”.

In the current situation, how people are understanding, perceiving, and practicing their behaviour “[11]” to prevent themselves is great challenge for nearly among all the community around the world to deal and reinforce. Assessments of people’s knowledge of Covid-19 and health behaviour provide essential information for Covid-19 pandemic prevention “[12]”. In particular, surveys of knowledge, attitudes and practices are useful public health tools to recognize effective strategies for behaviour change towards securer practices and to reduce stress” [13]”.

## **METHOD**

The online survey design was used to collect data from Malaysian adults (n=304), during the movement control order. Covid-19 Pandemic Perceptions Scale (CPPS) was used to collect data from the participants. The scale consists of 4 domains including, knowledge, behavioural practices, attitude and stress toward the Covid-19 pandemic. The scale consists 5point Likert scale, strongly agreed to strongly disagree. The content validity was obtained by 4 expert panel validation on the scale. The pilot test of the study (n=60) to assess the reliability of the scale was conducted

and reported Cronbach's Alpha ( $\alpha$ ).97, as a strong reliability score. The participation of the respondents was voluntary, from all the district of Malaysia. The Multivariate analysis was conducted to find the differences in gender, marital status and working related variables with knowledge, preventive practices, attitude and stress.

## RESULTS

Data obtained were analysed using descriptive and inferential statistics. Descriptive statistics are used specially to describe the characteristics of a collection of scores and it includes the mean and standard deviation.

Table 1. Characteristics of respondents

Demographic Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	124	40.8
	Female	180	59.2
Marital Status	Single	218	71.7
	Married	86	28.3
Field of study	Human Science	186	61.2
	Scientific	48	15.8
	management	70	23.0
Educational Level	degree	194	63.8
	Master	46	15.1
	PhD	64	21.1

Table 1 indicates that 59.2% of participants are females and 40.8% are male, married (71.7%) and single (28.3%). Almost half of the participants are from the field of human science (61.2%), and almost all respondents are undergraduate (63.8%).

Table 2. Means and Standard Deviations for knowledge related to the Covid-19 virus, Covid-19 prevention practices, attitude towards Covid-19 virus, and stress as a function of gender and marital status

	Gender	Marital Status	M	SD	n
Knowledge related to the Covid-19 virus	Male	Single	4.57	.29	60
		Married	4.05	1.04	64
	Female	Single	4.45	.32	158
		Married	4.33	.42	22
Covid-19 Prevention Practices	Male	Single	3.42	.77	60
		Married	3.61	.53	64
	Female	Single	3.30	.55	158
		Married	4.09	.47	22
Attitude Towards Covid-19 virus	Male	Single	3.79	.43	60
		Married	3.60	.49	64
	Female	Single	3.65	.40	158
		Married	4.02	.45	22
Stress	Male	Single	2.18	.88	60
		Married	2.37	1.04	64
	Female	Single	2.26	.89	158
		Married	2.65	1.56	22

Referring to Table 2, the respondents as a whole was reporting the highest knowledge related to the Covid-19 with single male respondents (M = 4.57, SD = .29), and the lowest with married male respondents (M = 4.05, SD = 1.04). The results also showed that highest Covid-19 prevention practices was reported by married female with (M = 4.09, SD = .47) and the lowest reported by single female (M = 3.3, SD = .55). Furthermore, attitude towards Covid-19, married female reported the highest with (M = 4.02, SD = .47) and single female the lowest with (M = 3.65, SD = .40). Finally, the results showed that married female suffer more from stress (M = 2.65, SD = 1.56) and single male with (M = 2.18, SD = .88) experienced less stress to compare with other groups. Inferential statistics on the other hand attempt to make inferences and predictions based on the data gathered by testing the proposed hypotheses the effects of Knowledge, attitude, and practices and stress. In this study the hypotheses were tested by using Two-way MANOVA regards to gender and working places for all variables.

Table 3. Univariate effects of gender and marital status on study variables

Source	Dependent Variable	df	F	p	$\eta^2$
Gender	Knowledge related to the Covid-19 virus	1	.93	.335	.003
	Covid-19 Prevention Practices	1	4.34	.038	.014
	Attitude Towards Covid-19 virus	1	4.80	.029	.016
	Stress	1	1.58	.209	.005
Marital Status	Knowledge related to the Covid-19 virus	1	16.30	.000	.052
	Covid-19 Prevention Practices	1	32.44	.000	.098
	Attitude Towards Covid-19 virus	1	1.86	.173	.006
	Stress	1	4.07	.045	.013
Gender * Marital Status	Knowledge related to the Covid-19 virus	1	6.06	.014	.020
	Covid-19 Prevention Practices	1	12.24	.001	.039
	Attitude Towards Covid-19 virus	1	19.58	.000	.061
	Stress	1	.50	.479	.002

To assess whether males and females with different marital status have different Knowledge related to the Covid-19 virus, Covid-19 Prevention Practices, Attitude towards Covid-19 virus, and stress scores and whether there was an interaction between gender and marital status, a multivariate analysis of variance was directed. The assumptions of independence of observations and homogeneity of variance/covariance were checked and met. Bivariate scatter plots were checked for multivariate normality. Regarding Univariate effects (Table 3) indicate that the main effect of gender was statistically significant for Covid-19 Prevention Practices with Wilks'  $\Lambda = .974$ ,  $F(1, 300) = 4.34$ ,  $p < .05$ , multivariate  $\eta^2 = .014$  and also for Attitude towards Covid-19 virus with Wilks'  $\Lambda = .974$ ,  $F(1, 300) = 4.80$ ,  $p < .05$ , multivariate  $\eta^2 = .016$ . The results also showed that the main effect of marital status was

statistically significant for Knowledge related to the Covid-19 virus with Wilks'  $\Lambda = .835$ ,  $F(1, 300) = 16.30$ ,  $p < .001$ , multivariate  $\eta^2 = .052$ , for Covid-19 Prevention Practices with Wilks'  $\Lambda = .835$ ,  $F(1, 300) = 32.44$ ,  $p < .001$ , multivariate  $\eta^2 = .098$ , and for stress with Wilks'  $\Lambda = .835$ ,  $F(1, 300) = 4.07$ ,  $p < .05$ , multivariate  $\eta^2 = .013$ . The interaction was also statistically significant of gender and marital status for Knowledge related to the Covid-19 virus with Wilks'  $\Lambda = .917$ ,  $F(1, 300) = 6.06$ ,  $p < .05$ , multivariate  $\eta^2 = .020$ , for Covid-19 Prevention Practices with Wilks'  $\Lambda = .917$ ,  $F(1, 300) = 12.24$ ,  $p < .001$ , multivariate  $\eta^2 = .039$ , and for Attitude Towards Covid-19 virus with Wilks'  $\Lambda = .917$ ,  $F(1, 300) = 19.58$ ,  $p < .001$ , multivariate  $\eta^2 = .061$ .

## DISCUSSION

The results showed that Covid-19 Prevention Practices and Attitude towards Covid-19 virus with the interaction of gender and marital status were statistically significant among Malaysian adults during the Covid-19 movement control order. Among community pandemic related attitudes toward the behaviour management and change demands important placed upon during the phases of pandemic disease” [14]”. Some earlier literature suggest that lack of knowledge may hinder the ability of population to deal effectively for the preventive responses and management of any pandemic. It is very important to know what the transmission routes of infectious diseases are and thereby accordingly take self-protective measures against epidemic diseases. To enhance the awareness, knowledge towards Covid-19 preventive measure like social distance wearing mask, washing hands, using sanitizers among the community have variance responses regarding gender and marital status. Community awareness towards the risk perception and knowledge is understanding the information about risk and danger related to pandemic diseases reported differently among genders and marital status, the male perceived lower as compared female, and the married reported higher as compared to single.”[15]” Estimates of a behaviour to perceive and interpret as effective or not effective, positive or negative mainly depends on knowledge and attitude which direct that behaviour to occur as management strategy for precautions. The mostly adults married taking precautions more effectively as related to management interventions. An individual attitude is based on the perceived group-level of impact related to a particular behaviour, whether important groups to engage in that behaviour, to approve or disapprove for performing “[16]” mainly the married couple has more responses towards that acceptance “[17]”. Formerly, perceived behavioural management was thought to precisely influence the behaviours “[18]”, some research showed this relationship to be indecisive “[19]” in reference to gender and their marital status.

People are becoming aware of social distance self-care, self-isolation, hands washing, and wearing masks. The ability to communicate the news updates and data in real time with researchers and public health officials around the world signals a major change in the response to outbreaks. This connectivity has facilitated awareness as well as new collaborations and a rapid response by the global research community “[20]”. Acknowledged practices can play major role in route for the prevention measure to be effectively and adheres to control the pandemic

disease “[21]”. Many interventions around the world were suggest “[9]” during this phase of Covid-19 breakthrough to help people be aware, informed and psychologically enacted. These included reviewing the exactness of information disclosed, enhancing social support systems (eg, families and friends), reducing stress, eradicating negative attitude associated with the epidemic, and helping people in maintaining a normal life under safe conditions. “[22]”

In this modern societies in which the objective risk of contact individuals' access based on their own truly understandable concept of danger, if they have information, it can lead to develop an attitude towards specific behaviour measurement “[23]”. The current study revealed the importance of knowledge, practices, attitude and stress towards Covid-19 pandemic in Malaysia. Different population is responding differently related to the Covid-19 perceptions and preventive measures around the world.

## CONCLUSION

The study conclude that Malaysian adults are responding significantly differently towards the perceptions, attitudes and practices related to virus prevention during the outbreak of Covid-19 pandemic. Gender and marital status are significantly differed in response to the perceptions towards Covid-19, male, female, single and married adults with good level of education are responding differently to perceptions of preventive measure and stress toward Covid-19. Study was conducted in the initial phase of movement control order, and they were a smaller number of respondent in this study to generalize the results. At the current scenario the directions and measurements towards the Covid-19 might lead more differently as compared to early phase of study.

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