

## Quality Of Life During Conditional Movement Control Order Among Malaysian University Students – A Cross Sectional Study

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**Abstract :** This study measured the impact of conditional movement control order on quality of life among local Malaysian university students aged >18 years old. An online survey was distributed through a social media platform during conditional movement control order (CMCO; 12 to 20 May 2020) All the participants completed SF-36 quality of life questionnaire that assessed the overall physical health, mental health, and eight domains which are physical functioning (PF), physical role functioning (RF), bodily pain (BP), general health perceptions (GH), vitality (V), social role functioning (SF), emotional role functioning (EF), and mental health (MH) in both phases. A total of 1048 participants (Male = 591, female = 457) completed the survey. A descriptive test reported above average mean score in both health related and mental quality of life for PF (85.97±16.81), RF (75.69±18.29), BP (71.25±17.05), GH (66.59±18.12), V (64.95±14.34), SF (72.50±16.99), EF (74.61±18.57), and MH (71.04±14.42). In overall university students' quality of life, an average mean score was shown in physical health quality of life (51.88±6.45) and lower than average score in mental health quality of life (46.96±7.02) during CMCO. In summary, variance experiences through the COVID-19 pandemic faced by the university students during conditional movement control order were noted to have an impact on their quality of life.

**Keywords:** Covid-19, quality of life, students, Malaysia, CMCO.

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### I. INTRODUCTION

Practically in all parts of Asia and in most European and North American countries, coronavirus illness, which was identified as COVID-19 by the World Health Organization (WHO), spreads swiftly. COVID-19 cases were shown to be more severe than SARS-CoV cases. By the 25th of February 2020, a total of 81,109 tests have been documented worldwide. As of 3 July 2020, the confirmed COVID-19 cases skyrocketed to 11,084,490, due to the vulnerable spread of the pandemic with 526,397 deaths [1]. Due to a lack of definitive treatment and limited information on innovative and the dangerous of this virus, coronaviruses have become a difficult and truly strenuous scenario for all global experts [1]. COVID-19 was initially discovered in Malaysia on 25 January 2020, with relatively few reported cases and largely confined to imported cases. It was until March 2020 that localized clusters began to appear in a substantial way, surpassing the 2000 active cases mark by the end of the month, up from less than 30 instances earlier in the month. In Malaysia, the explosive COVID-19 epidemic has prompted the implementation of pragmatic preventative measures such as thorough case diagnosis, accurate tracking, and mandatory two-week quarantine. As a result, Malaysia's government has announced the implementation of the Movement Control Order (MCO) as a technique for flattening the pandemic curve [2]. The implementation of MCO has forced and encouraged people to stay at home.

Additionally, a seven-week MCO was employed, containing four phases, followed by a five-week conditional MCO (CMCO) to flatten the cases. These MCO phases were established by the Malaysian government after taking into consideration the livelihoods of communities and the overall stability of the

country's economic system and only critical business/services/premises were allowed to continue operating under the MCO phases [3]. In addition, other service sectors, including schools and higher education institutions, were forced to stop all physical activity. Apart from that, mass gatherings for religious, sports, social, and cultural activities were prohibited, all places of worship were closed, including mosques, churches, and temples, restaurants were prohibited from providing dine-in services, public transportation hours were restricted, and only one person per household was permitted to leave the house for daily necessities and medical care. During five weeks of CMCO, most economic sectors experienced a relaxation of regulations, with company standard operating procedures (SOPs) comprising physical separation, temperature checks, and the recording of client names and contacts [3]. However, all schools and educational institutions remained closed. This resulted in several universities changing their learning system and resumed the learning activity via remote and online teaching methods. Since there are big and sudden changes in the learning system and lifestyle, the students might experience a negative impact on their emotional and psychological well-being. Therefore, there is a need for study to investigate to what extent the students' quality of life is impacted by the pandemic state. Since there were various phases and SOPs were introduced by the Government, therefore this study aims to ask the opinion from young adults, especially the university students on their quality of life during the pandemic state.

## **II. METHODOLOGY**

A cross sectional research design using online surveys was used in this study to collect the data. All samples were recruited using snowball sampling methods from both public and private universities. Data collection took place within 30 days from 12th April 2020 and ended on 20th May 2020

### **2.1 Participants**

A total of 1,048 responses were retrieved from various public and private universities. Their participation was voluntary. All the students who were able to understand English and with no history of psychiatric/mental disorders were eligible to participate.

### **2.2 Data Collection**

Since all universities were closed during the pandemic, an online survey using a google form was created to collect the data. The google form was sent in a link and QR code form through various social media platforms such as Facebook, Twitter, WhatsApp, and email. Both link and QR code was sent randomly to all students in all states. When the respondent clicks the link or scans the QR code, it is directed to the research information page and consent form. The details of the research were explained briefly in the information page while the consent form was clearly stated on the expectations and commitments to the project. All respondents must click "I Agree" after they have read the consent form. Then, the next page of the form will be the demographic and SF-36 QoL questions. The survey was designed in English only. Only completed answered questionnaires were used for analysis.

### **2.3 Instrument**

This study measures the Quality of Life (QoL) among Malaysian university students by using the 36-Items Short Form Health Survey (SF-36), which divided into eight domains of QoL; (i)physical functioning (PF), (ii)physical role functioning (RF), (iii)bodily pain (BP), (iv)general health perceptions (GH), (v)vitality (V), (vi)social role functioning (SF), (vii)emotional role functioning (EF), and (viii)mental health (MH). The data were scored by using the scoring rules for the RAND 36-Item Health Survey. The questionnaire consists of both demographic (age, gender, ethnicity, University, program, level of study, year of study and history of psychiatric/mental disorders check) and SF-36 QoL questions. Moderate to high reliability was reported for each component in the SF-36 QoL questionnaire (PF=0.89, RF=0.87, BP=0.89, GH=0.85, V= 0.84, SF=0.52, EF=0.84, MH=0.82).

### **2.4 Data Analysis**

Data were analyzed with IBM statistic version 26. All results of quantitative variables were reported either as mean  $\pm$  standard deviation or frequency percentage (%).

**III. RESULT**

**3.1 Respondent's Characteristic**

Of all 1, 048 respondents, 56.4% (n=591) of them were male and 43.6% (n=457) were female. Table 1 below showed the demographic characteristics analyzed in all respondents.

**TABLE1. Demographic characteristics of Respondents**

<b>Characteristics</b>	<b>Frequency</b>	<b>Percentage (%)</b>
<b>Gender</b>		
Male	591	56.4
Female	457	43.6
Total	1048	100.0
<b>Age (years old)</b>		
18 – 25	689	65.8
26 – 33	327	31.2
> 33	32	3.1
Total	1048	100.0
<b>Ethnicity</b>		
Malay	495	47.2
Chinese	459	43.8
Indian	94	9.0
Total	1048	100.0
<b>University</b>		
Public	459	43.8
Private	589	56.2
Total	1048	100.0
<b>Program</b>		
Science and Technology	585	55.8
Social Sciences	463	44.2
Total	1048	100.0
<b>Level of Study</b>		
Diploma/Certificate	504	48.0
Degree	512	48.9
Postgraduate	32	3.1

Total	1048	100.0
Years of Study		
Year 1	285	27.2
Year 2	653	62.3
Year 3	110	10.5
Total	1048	100.0

### 3.2 Quality of Life

Table 2 below illustrated the mean (M) and standard deviation (SD) in all the quality of life domains during MCO.

**TABLE 2. Mean and standard deviation for Quality of Life**

	M	SD
Total Physical Health	51.88	6.45
Total Mental Health	46.96	7.02
Physical Functioning	85.97	16.81
Physical Role Functioning	75.69	18.29
Bodily Pain	71.25	17.05
General health	66.59	18.12
Vitality	64.95	14.34
Social Role Functioning	72.50	16.99
Emotional Role Functioning	74.61	18.57
Mental Health	71.04	14.42

## IV. DISCUSSION

The COVID-19 epidemic has had a significant impact on people's daily lives and has had far-reaching implications (healthcare, economic, and social) for people from all ages [4] [5] [6] [7] [8] [9]. The purpose of this study was to obtain the perspectives of young adults who are currently enrolled as university students. The respondents were asked to complete a questionnaire during MCO and the results were processed to measure the impact of both lockdown and restricted access to public spaces on the students' quality of life.

The SF36 Health Survey is a 36-item self-report survey that assesses 8 domains of physical health and mental health, ranging from 0 to 100, where the highest score indicates the optimal QoL and the lowest score indicates the poorest QoL [10]. According to the findings of this study, the level of all 8 domains for physical and mental health of the students is above average (>50). This could be due to a relaxation of restrictions to most economic sectors, with business standard operating procedures (SOPs), including physical distancing, temperature checks, recording the names and contacts of customers during CMCO [3]. Other possible reasons for this score during the CMCO phase could also be due to the students slowly get used to the changes occurring in their life such as performing indoor activities more, spending more time with families and others. Furthermore, the improvement in physical functioning could be one of the factors of improvement in total QoL.

In the meantime, during MCO only major companies were permitted to function, while most services sectors, including schools and colleges, halted all physical activity [3]. Limited access to public spaces during the first phase of MCO was found to be significantly associated with a reduction in the psychological well-being of the students [11]. Previous study reported that the significant decrease in the frequency of visits to open and closed public spaces, and the resulting decline in physical and social activities (human interactions) had a highly negative impact on their psychological well-being and mood [12].

Among all the 8 domains in QoL, this study found that the highest score was in physical functioning. This could be due to the changes made in the students' daily activities since MCO started. This was supported by a previous study [13] where practicing a healthy daily living played a positive role in improving the physical functioning as well as the quality of life. Additionally, the lowest improvement found in this study was in the mental health domain. This could probably be due to the lack of positive feelings about the future, happiness, balance, and hopefulness among themselves following the COVID-19 situation. As of the 17th of April 2020, there were 5,251 COVID-19 cases including 86 deaths reported by the Ministry of Health (MOH) in Malaysia [14] which could be a possible reason that the respondents feel scared and lack positive feelings throughout the MCO phases.

Although the score reported in all QoL domains were more than average, the mean score for total mental health was below average (below 50). This is not a good indicator of one's quality of life. The low score gained for mental health among the students might be due to the state of isolation since the first phase of MCO. A rapid review of previous outbreaks indicates that isolation or restricted access measures have a detrimental effect on an individual's physical and psychological health, including posttraumatic stress symptoms, confusion, and anger caused by a variety of conditions, including fears of infection, frustration, boredom, insufficient supplies or information, financial loss, and stigma [15].

According to a recent study [16], young adults and educated individuals are particularly prone to physical and emotional suffering. Furthermore, interrupted daily life and delays in academic activities were positively associated with a decline in students' mental health [17], increased sadness, and conflict [18]. The absence of daily contacts with friends during visits to bars, gyms, parks and swimming pools was a distressing experience which had a negative impact on the respondents' social lives and social interactions [12]. Recent studies [9, 11] on COVID-19 pandemic also provide evidence on negative impact towards mental health. Additionally, the sudden changes in daily living during the pandemic point to the degrading quality in health and well-being [9]. Other than the sudden changes in daily living, there are various factors such as uncertainty of graduation, fear of dormitory evacuation, fear of losing future jobs that might contribute to the deterioration of students' well-being [19] [20]. Therefore, it is recommended for future study to measure on factors that could influence student's health, well-being and also their academic performance during a pandemic.

## **V. CONCLUSION**

This study has several limitations. First, data and relevant analyses presented here were derived from a cross sectional study and by self-report tools, limited to the COVID-19 outbreak and voluntary basis. Second, it was not possible to assess the participation rate, since it is unclear how many subjects received the link for the survey. Third, due to the sudden occurrence of the disaster, we were unable to assess an individual's psychological conditions before the outbreak; we were just sticking to the exclusionary factors. Our main focus was on their subjective assessment of QoL among university students. In summary, variance experiences through the COVID-19 pandemic faced by the university students during MCO were noted to have an impact on their quality of life. Although their quality of life score showed above average in the CMCO phase, the score is still considered low. From the pattern of changes in quality of life among the students between MCO phases, it can be assumed that the students' quality of life might improve from time to time following the positive changes in MCO SOPs and their acceptance towards it.

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