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The Effect of COVID-19 Lockdown on Mental Health Status of Students in Thai and International Schools

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ABSTRACT

Isolation, especially from the COVID-19 pandemic's lockdown regulations, has exponentially hindered human civilisation from doing usual things. Most of our activities, such as socialising, working, and learning, must be done at home in order to prevent the spread of the Coronavirus. While many people can benefit from working and learning online because they are able to work productively at home, there are several strands of evidence correlating isolation with negative mental health effects. Prolonged isolation may cause symptoms ranging from mental instability to completely losing track of time (Hebb, 1993). There should be a correlation between mental health and time spent during this quarantine. The effects of quarantine are expected to be a lot milder than the symptoms proposed by Hebb because during quarantine, most people still continue socialising although it may be less than usual. This research work attempts to find correlations, if any, between the quarantine time period and the mental health status of students from Thai schools and international schools through an online survey. Using Pearson's correlation test, the findings suggested that there was a strong correlation between online learning during lockdown and a negative impact on student's mental health from both Thai and international schools. Moreover, the majority of the students (140 participants; 50.9%) claimed that their stress levels were affected by COVID-19 while the other 79 participants (28.8%) were not affected by the pandemic, and the rest (56 participants; 20.4%) reported neutral opinions.

Keywords: COVID-19, High school students, Lockdown, Mental health, Online learning

INTRODUCTION

Due to COVID-19 outbreak, one of the worldwide regulations that has been implemented is lockdown measures, where outside activities are mostly prohibited, and people are advised to stay home. This strategy is reinforced to avoid direct contact between individuals and to prevent the spread of infection. Ever since governments around the world have started utilising lockdown and quarantine regulations (The Health Protection, 2020), many student's lifestyles have been changed to a stagnant lifestyle. At a time when students are supposed to be actively socialising with friends and being mobile while learning new things, they have now been requested to stay in isolation, restrained by the pandemic. Educational institutions are significantly affected by the lockdown from the pandemic. Classroom teaching is cancelled, switching to online learning, placing additional pressure on students (Charnbhumidol *et al.*, 2020). This could deteriorate the existing stress resulting from their academic

curriculum. Online learning raises the problem of students distressing over the lack of concentration, fear of infection, anxiety, loneliness, economical inequality (Singh *et al.*, 2020), instability in school and the future, and etc. The impact of remote learning on students' mental health has been an increasing concern (Son C *et al*., 2020). This phenomenon has led to both short term and long term psychosocial and mental health implications for students in Thailand. The impact on minors is determined by many vulnerability factors, such as developmental age, educational status, pre-existing mental health condition or a state of being quarantined due to infection or fear of infections. (Singh *et al.*, 2020)

As a result of the lockdown, students are restricted from resuming a normal life contributing to putting strains on student's mental health during the lockdown. This study aims to assess the effect of lockdown on student's mental health, and to investigate the effect of learning online during COVID-19 on students' mental health in international and Thai schools. The hypothesis for this research is that learning online during COVID-19 lockdown increases the strain on the mental health of high school students, and it is assumed that there is a difference in the impact of mental health between students from Thai schools and international schools due to the difference in educational system, curriculum and a different way of approaching students' interests.

MATERIALS AND METHODS

Participants

To maintain objectivity and avoid the bias in data analysis, we utilised the Simple Random Sampling method. Participants included groups of high-school students in Year 11, 12 and 13 (Mathayom 4,5 and 6 in Thailand), both from Thai schools and international schools which also include high school students in England.

The total number of participants was 271; 174 of them were from a Thai schools (64.2%), and the other 97 students (35.8%) were from international schools. The number of participants from international schools was lower due to the fact that there might be less people who were able to afford the international schools' education expenses which could be up to double the amount one had to generally pay for Thai schools (Suphanida,2021). According to Table 1, the data showed that 36 students (13.3%) were previously diagnosed with a mental illnesses, which could support the notion that there had been an initial stress level before the COVID-19 lockdown.

The questionnaire about the effect of lockdown on mental health status of high-school students in Thai and international schools was sent via email, text message, and social media platforms: Instagram, Facebook and Twitter.

Table 1: Participants' Demographic (n = 271)

Participants' Demographic			
General Information		**Frequency**	**Percentage**
1) Gender	Female	163	60.1
	Male	108	39.9
	Total	271	100
2) School	Thai School	174	64.2
	International school	97	35.8

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	Total	271	100
3) Educational level	Year11 (M.4)	105	38.7
	Year12 (M.5)	116	42.8
	Year13 (M.6)	50	18.5
	Total	271	100
4) Mental-Health Condition	Diagnosed	36	13.3
	Not Diagnosed	235	86.7
	Total	271	100

Measurement

The questionnaire, consisting of 18 questions, was verified with a rating of 0.5 by four experts using the Item-Objective Congruence Index (IOC), before being revised and prepared as an online survey using Google Forms.

The questionnaire was divided into 2 sections including:

[1] 'General Information' section with the sum of 4 questions: purposefully, this part aimed to explore the students' background information which is important as it might be the cause of their mental stress level apart from the lockdown due to COVID-19.

[2] 'Mental health of students' part contained seven questions in total: these questions collected data on the stress level and the mental state of high-school students triggered by COVID-19 Lockdown. The items asked for information regarding their stress levels, and motivation to study.

The answers to the question were placed on a five-point scale:

1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree

[3] 'Online learning during lockdown' consisted of seven questions. This section was designed to measure the impact of online studies on the ability to learn in order to test the correlation with the level of stress. The factors in this section included the amount of homework, teaching strategies, difficulty of content and screen time on educational activities. The selection of answers was from a five-point Likert scale:

1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree

The questionnaire was sent to a pilot group of 17 respondents, and the obtained data were then analysed to determine the internal reliability using the Cronbach Alpha to ensure that the reliability of the standard of the questions was met. The minimum reliability value for Cronbach Alpha is 0.7 (Cortina, 1992), and our work passed the minimum score with the reliability of 0.806, analysed with the Statistical Product and Service Solution (SPSS) version 27.0. The online survey was distributed to high school students aiming to correlate the two variables, Lockdown and Mental Health, using the Pearson's correlation test.

Data Analysis

In this research, high school students (Year 11 - Year 13) were categorised into two different groups, the Thai school students and the international school students. To further investigate the correlation between the effect of lockdown and online learning on their mental health, Pearson's coloration (two-tailed) coefficient was determined using the Statistical Product and Service Solutions (SPSS) at

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the confidence level of 99% (p = 0.01). To achieve this, raw data from the Google Form survey were converted into a combination of two-point (three questions), three-point (two questions), and five-point (fourteen questions) Likert scale. In addition, to compare the effect of lockdown and online learning between Thai and international schools, a Student's t-test was used. However, general information was excluded from data analysis in the SPSS.

RESULTS

Table 2: Correlations between online learning during lockdown and mental health of student (n = 271)

Correlations		
		Mental Health of students
Online learning during lockdown	**Pearson coloration**	0.674**
	Sig. (2-tailed)	< 0.01
	N	271

** Correlation is significant at the 0.01 level (2-tailed)

Table 3: Group Statistic (n = 271)

Group Statistic				
	School	**N**	**Mean**	**Std. Deviation**
Online learning during lockdown	Thai School	174	3.8530	0.66430
	International School	97	3.6141	0.58691
Mental health of students	Thai School	174	3.4245	0.71888
	International School	97	3.2032	0.69828

The results from 271 participants indicated that the COVID-19 lockdown's online learning and the status of highschool students' mental health are correlated. Peason correlation revealed that the two variables, Lockdown and Mental Health, have a significant correlation (correlation coefficient, r=0.674**, according to Table 2), demonstrating that there is a strong correlation between the COVID-19 lockdown and the impact on mental health problems. The results mirrored the hypothesis which stated that there is a correlation between the two variables.

The results from the second analysis using the Student's t-test compared the impact of online learning during COVID-19 lockdown on the two

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groups of participants: high school students from Thai school (n=174) and international school (n =97). The alpha value of the t-test should be more than or equal to 0.05 (Bruin, 2006); however, the result demonstrated that there is no significant difference between online learning during lockdown in Thai schools and international schools (according to Table 3). Similarly, the result for the impact on mental health status of high school students was the same between Thai and international schools students. Our data provided evidence supporting that there is no independence between the impact of online learning on student' stress levels, revealing that both Thai and international schools' students are similarly affected by online learning. The results rejected the initial hypothesis that there is a significant difference between the impact of online learning on students' mental health status from Thai and international schools.

DISCUSSION

This research was conducted in a group of students from Thai and international schools using a questionnaire to compare the effect of online learning during lockdown on mental health status. The results from this study demonstrated that there is a significant correlation between online education during the lockdown period and the negative effect on students' mental condition that contributed toward stress levels. Similarly, with reference to Changwon Son, the long-lasting pandemic situation, and onerous measures such as lockdown and stay-at-home orders, the COVID-19 pandemic has brought negative impacts on college students (Changwon, 2020). Though his research includes participants who are mainly college students, his results show that the college students experience mental health problems from various factors, including health and life-style related outcomes, and academic issues. His conclusion supports our results, where online learning during lockdown could deteriorate the mental health status of the students. Changwon mentions that college students' stress levels are mainly caused by their concerns over their academic's performance; likewise, we could also conclude from our participant's response that the potential factors contributing to their academic pressure were the extensive amount of assignments and the teaching strategies. Interestingly, our research revealed that there were different outcomes between Thai and international school students, regarding the correlation between the impact of online learning during COVID-19 lockdown and the mental status of the students. Our result rejected the presumption that there would be a significant discrepancy of stress level due to the different educational systems and contents. One possible reason for this result could potentially be due to the effect of the COVID-19 on both Thai and international high school students' pressure of maintaining academic performance in order to apply for their desired colleges, especially with unexpected changes in education plans (i.e., the cancellation of standardised or national examinations).

CONCLUSION

The results from this study showed a significant correlation between online learning during COVID-19 lockdown and the impact on high school students in Thai and international schools. The impact on students from both schools was similar when tested separately. Our evidence reinforces that, despite being in different educational systems, there is a rising issue of a negative influence on the majority of student's mental condition, which is due to the sudden change in their learning routine. This potentially builds up to the initial stress before lockdown in 111 participants (40.9%), which implies that due to participants being in high school, they are continuously aware of the preparation for university entrances, putting them on a long term pressure. Schools should take action and approach these problems by assigning counselors, or giving Personal, Social, Health and Economic (PSHE) education with the intention that students will be able to manage their stress levels (Steph Caswell, 2019). Furthermore, our data suggest that the awareness of mental illness should be raised within the school community and parents to understand the importance of taking mental health seriously. In the future, our findings could be used to test alternative teaching strategies that are more efficient, or to determine an appropriate amount of assignments per day for each student in order to prevent overstress and burdens putting on the mental state of students.

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