



The effect of semester postponement due to the COVID-19 pandemic on stress of high school students in Bangkok

Duangkamol Monthatipkul¹, Paticha Kosonboon¹, Punmile Jaroensombat¹, Thitikarn Lovichianrung²,
*Dr. Ponlkrit Yeesin³

¹Triam Udom Suksa School, Bangkok, Thailand

²Bodindecha (Sing Singhaseni) School, Bangkok, Thailand ³Faculty of Science, Srinakharinwirot University, Bangkok, Thailand

*Corresponding Author:

Dr. Ponlkrit Yeesin

Faculty of Science, Srinakharinwirot University, Bangkok, Thailand

Type of Publication: Original Research Paper

Conflicts of Interest: Nil

Abstract

Since the beginning of 2020, COVID-19 has directly affected education because the government needs to quarantine the city and postpone school semesters. Classes are adjusted to remote learning or online classes. The semester postponement has affected the stress of high school students at last. The main purpose of this research is to determine the relationship between the effect of semester postponement and stress of high school students in Bangkok, Thailand. We conducted a cross-sectional survey research, and data were collected from 706 high school students in Bangkok using an online survey questionnaire through Google form. Unfortunately, some participants made errors, so only 635 participants were included in our final analysis. To determine the correlation between the effect of semester postponement and stress of high school students, we used Statistics Products and Service Solutions (SPSS) for data analysis. Pearson's correlation test revealed that the effect of semester postponement and students' stress significantly correlate. During the semester postponement, students have less time to study but still have to accomplish many studying modules and assignments.

Furthermore, the social support at school that could help students cope with everyday life stressors and lighten the burden of workload are dramatically decreased. Both students and the Ministry of Thailand Education could benefit from our work, since our data suggested that one of the factors causing stress in high schoolers is the semester postponement. Hence, Thai students including four authors of this work should be more aware about their own mental health and semester postponement policies.

Keywords: School, High school students, Mental health, Stress, COVID-19, Semester postponement

INTRODUCTION

COVID-19 is a highly contagious disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The first known case was identified in Wuhan, China, in December 2019.¹ The disease has since spread worldwide, leading to an ongoing pandemic.² Thailand detected its first novel coronavirus-infected case in early January 2020, making it the first place outside of China to detect a case. With large numbers of Chinese tourists coming to Thailand during the New Year holiday in late

December 2019, the country reported the first case of novel coronavirus infection in a Chinese tourist on January 13th, 2020.³ The number of new cases of

laboratory-confirmed COVID-19 announced by the Ministry of Public Health of Thailand continued to increase and reached its peak in March 2020. There were 188 new cases, bringing the total number of cases to 599 on March 22nd, 2020.⁴

The direct impacts of COVID-19 on the education sector have been through mitigation measures implemented by the Thai government to limit the spread of the virus, including school closures and city lockdown. Postponement of semesters in high school policy was applied to more than 10,000 schools nationwide.⁵ The first wave of COVID-19 pandemic in Thailand happened between January and May 2020,⁶ the second wave started December 2020⁷ and the third wave has been happening since April 1st 2021.⁸ Due to the fact that the Ministry of Education has decided to delay the opening of the new school term from May 17th to June 1st, 2021 over rising COVID-19 concerns. Opportunities to learn at schools are lost due to the extended school closures. Further educational losses and inequalities are likely to arise, and worsen the situation, according to remote learning or blended learning approaches, which cannot be accessed by some students, especially those in moderate- or low-socioeconomic status households, which include the majority of Thai people.⁹ Delaying a school term is necessary to keep students and teachers from interacting face-to-face to decrease the chance of viral transmission.¹⁰ However, semester postponement caused high level of students' stress.

Stress is very common for students in educational settings. Exams and tight deadlines are the examples of events that result in high levels of stress.¹¹ The postponement of semesters may also have an impact on students' stress, since there is a previous study suggesting that the semester postponement affects

their everyday lives and they have to adapt to unplanned changes.¹² However, it is not known whether the previous research can still apply to the pandemic situation. Our research aims to explore the correlation between the effect of semester postponement during the COVID-19 era and stress of high school students in Bangkok, Thailand.

METHODOLOGY

Our research is a cross-sectional survey research. This research mainly used online surveys and social media for data collection. Our research instrument was a 32-question questionnaire; the questions regarding the effect of postponing a semester due to the COVID-19 pandemic on high school students' stress in Bangkok were designed according to the established research.¹³ The questionnaire consisted of 3 sections, including personal information, the effect of postponing semester and the perceived stress scale (PSS). The questionnaire contained multiple choices and results were converted to numbers using a likert scale which was measured from 1 (Strongly disagree) to 5 (Strongly agree). The participants obtained from a random sampling method were high school students in Bangkok. We obtained 706 responses but only 635 of them were practical because the other 71 responses weren't fully answered. The Statistical Product and Service Solutions (SPSS) was used to analyse the data. We used the Item-Objective Congruence (IOC) to screen the item quality and passed by 3 experts. We calculated the internal reliability (Cronbach alpha) and the score was 0.917 which was widely accepted.¹⁴

RESULTS

Table 1: General information about participants

Personal Information	Frequency	Percent
1. Gender		
Male	198	31.2
Female	428	67.4

Other	9	1.4
2. Age		

16	180	28.3
17	336	52.9
18	75	11.7
3. School		
Bodindecha (Sing Singhaseni)	271	42.7
Triam Udom Suksa	140	22.0
Satriwitthaya 2	75	11.8
Other	149	23.5
4. Grade		
Grade 10	25	3.9
Grade 11		31.8
Grade 12	408	64.3

Table 2: Descriptive Statistics (Average and Standard Deviation)

	Average	Std. Deviation	N
School	4.08	0.68	635
Postponement			
Stress	3.23	0.83	635

Table 3: Pearson's correlation coefficient between the effect of semester postponement and stress

		School Postponement	Stress
School Postponement	Pearson Correlation	1	0.423***
	Sig. (2-tailed)	-	<0.001
	N	635	635

*** Correlation is significant at the 0.001 level (2-tailed).

Table 1 shows the general information about our participants. There are more participants who are female, 67.4 percent, than male which is 31.2 percent. The majority age group is 17 years old, consisting of 336 people, accounting for 52.9 percent. Most of our participants are studying in Bodindecha (Sing Singhaseni), 42.7 percent, followed by Triam Udom Suksa and Satriwitthaya 2 respectively, and 64.3 percent of them are in 12th grade.

According to Table 2, the mean of the effect of semester postponement was 4.08 which is close to the maximum value of 5.00, while its standard deviation was rounded down to 0.68. For stress, the mean was 3.23 and its standard variable was rounded up to 0.83.

These show high impacts of school postponement on stress of the participating students.

Table 3 indicates Pearson's correlation coefficient between the effect of semester postponement and stress. Of the 635 participants, results showed that the two variables have a highly significant correlation (correlation coefficient, $r=0.423^{***}$), providing evidence supporting our hypothesis that there is a positive correlation between the effect of semester postponement and stress.

DISCUSSION

As predicted, the results indicated a relationship between semester postponement and stress. These findings are certainly in agreement with the previous research findings. According to Sarah Ellis (2020), she elaborated on Rothman's speech that social isolation has taken a toll on young people, many of whom have been out of traditional school for six months. "They face the uncertainty of, when is school going to go back and when can we see our friends and hug them?" she says. The structure of life—at least how life used to look—vanished almost completely overnight.¹⁵

Because of the postponed semester, students have less time to study but many tasks and homework still remain, causing stress. Moreover, students have to prepare themselves for university entrance exams. Due to the semester postponement, many colleges/universities change their admission requirements and most students' preparing plans are always terribly altered causing a stress burden. Not only are educational institutions changed, but also many universities' open houses are turned into online open houses. Some universities even canceled their open houses; therefore, it is terribly challenging for students to explore their dream goals. Moreover, students are unable to conveniently consult their advisors and classmates about their study plans. During the semester postponement, less time in school and less social support could not help students cope with the stressors of everyday life and reduce their workload.

16 However, considering parents and government officers' perspectives, postponing the school semester could ensure that their children are safe from being infected with COVID-19, since going to school puts students at risk of contracting the disease. This is a reasonable point because school postponement can also have positive effects on students.

CONCLUSION

We asked groups of high school students in Bangkok, Thailand to complete a questionnaire, regarding their stressed level and the effect of semester postponement. Seven hundred and six high school students, both males, and females were randomly selected as participants in this study but only 635 of them were practical, for data analysis. The variables statistically tested were gender, age, and level of study for

demographic characteristics. It was hypothesized that semester postponement can cause high levels of stress in students.

Correlation coefficients were determined to test this hypothesis and data analyses yielded anticipated results. Our results demonstrated that there is a significant correlation between semester postponement and stress of high school students. Our work could be beneficial in raising awareness in both students and the Ministry of Education about the burden of stress of high school students regarding the semester postponement. In the future, we would extend our study to a larger scale and implement these new studies to educate the public or to enact a law to manage stressful situations in high school students, which in turn could diminish the incidence of mental illness. To sum up, one of the factors causing stress in high schoolers is the postponed semester. Our study illustrated that the semester postponement significantly affected stress of survey participants.

REFERENCES

1. Page J, Hinshaw D, McKay B (2021). "In Hunt for Covid-19 Origin, Patient Zero Points to Second Wuhan Market – The man with the first confirmed infection of the new coronavirus told the WHO team that his parents had shopped there". Retrieved from <https://www.wsj.com/articles/in-hunt-for-covid-19-origin-patient-zero-points-to-second-wuhan-market-11614335404> on 8 May 2021.
2. Zimmer C (2021). "The Secret Life of a Coronavirus – An oily, 100-nanometer-wide bubble of genes has killed more than two million people and reshaped the world. Scientists don't quite know what to make of it". Retrieved from <https://www.nytimes.com/2021/02/26/opinion/sunday/coronavirus-alive-dead.htm> on 18 May 2021.
3. Supakit Sirilak (2020). "Thailand's Experience In The COVID-19 Response". Retrieved from https://ddc.moph.go.th/viralpneumonia/eng/file/pub_doc/LDoc9.pdf on 8 May 2021.
4. The Nation (2020). "188 new cases take Thailand's Covid-19 total to almost 600".

- Retrieved from <https://www.nationthailand.com/news/30384600> on 9 May 2021
5. Nop Meechukhun (2021). "Thai Ministry of Education orders school semester postponement to June 1st to more than 10,000 schools nationwide due to the Covid-19 outbreak". Retrieved from <https://thepattayanews.com/2021/04/27/thai-ministry-of-education-orders-school-semester-postponement-to-june-1st-to-more-than-10000-schools-nationwide-due-to-the-covid-19-outbreak/> on 8 May 2021.
6. Puenpa, J., Suwannakarn, K., Chansaenroj, J. et al(2020). "Molecular epidemiology of the first wave of severe acute respiratory syndrome coronavirus 2 infection in Thailand in 2020". Retrieved from <https://doi.org/10.1038/s41598-020-73554-7> on 28 July 2021.
7. Somchai Jitsuchon(2021). "Easing pandemic pain among the poor". Retrieved from <https://tdri.or.th/en/2021/04/easing-pandemic-pain-among-the-poor/> on 28 July 2021.
8. Hathai Techakitteranun (2021). "Thailand's COVID-19 third wave surpasses 200,000 infections on Thursday". Retrieved from <https://www.thaiphsworld.com/tag/third-wave/> on 28 July 2021.
9. Noemie de La Brosse and Dr Stevan Lee (2020). "SOCIAL IMPACT ASSESSMENT OF COVID-19 IN THAILAND". Retrieved from <https://www.unicef.org/thailand/media/5071/file/Social%20Impact%20Assessment%20of%20COVID-19%20in%20Thailand.pdf> on 28 May 2021
10. Post reporters (2020). "New school term pushed back to July 1". Retrieved from <https://www.bangkokpost.com/thailand/general/1895230/new-school-term-pushed-back-to-july-1> on 8 May 2021.
11. Susanne Vogel & Lars Schwabe (2016). "Learning and memory under stress: implications for the classroom". Retrieved from <https://www.nature.com/articles/npjscilearn201611> on 29 May 2021.
12. UNICEF(2020). "How COVID-19 Changed Lives - Voices of Children". Retrieved from <https://www.unicef.org/georgia/stories/how-covid-19-changed-lives-voices-children> on 28 May 2021.
13. Department of MentalHealth, Ministry of Public Health"Stress assessment form". Retrieved from <https://www.dmh.go.th/test/qtest5/> on 28 July 2021.
14. Mohsen Tavakol & Reg Dennick (2011). "Making sense of Cronbach's alpha". Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4205511/> on 28 May 2021.
15. Sarah Ellis (2020). "The Growing Mental Health Effects of COVID-19 for Young Adults". Retrieved from <https://www.healthcentral.com/article/mental-health-effects-of-covid-19-on-students> on 23 May 2021.
16. Villanova, P. & Bownas, D.A. (1984). "Dimension of college student of the Southeaster" Retrieved from
17. <https://files.eric.ed.gov/fulltext/ED262690.pdf> on 23 May 2021.