



Physical health issues suffered by high school students during Online learning courses

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Abstract

Due to Coronavirus pandemic in Thailand, people's daily life has to change in to new normal way. So, Online learning courses has been regarded as a new norm during covid-19 epidemic outbreak since beginning of 2020 because of inconveniences to go to school for onsite classes and high risk of infections. The inability to attend the onsite studying at school lead to online learning at their homes. Whereas, leaning pattern still remains the same that learners have to be in process of studying for a long time as much as they had been. They must sit in front of their devices approximately eight hours on average. It is the reason why students become suffered from physical health issues. Therefore, the producer team has studied inquiries and data collection about their physical health conditions from a sample of high school students on Google form to analyze the common problems and health effects to analyze the solutions to the problems in the future.

From the results, it was concluded that long term online learning can lead high school students to various physical health problems and the severity of the problem is also related that the online studying can result in musculoskeletal pain. Furthermore, the majority have not received any treatment from a medical professional or any consultations. Thus, this issue should be accessed and solved as fast as possible.

Keywords: Physical health, High school students, Online learning

INTRODUCTION

Coronavirus disease (COVID-19) is an infectious disease caused by a newly discovered coronavirus that emerged in December 2019. (<https://www.hopkinsmedicine.org/health/conditions-and-diseases/coronavirus>)

End-to-end of the year, people's lifestyles were drastically modified due to stringent containment measures such as social distancing, isolation, quarantine, school closures, and lockdown, which are unfamiliar by many. During the social isolation period, an aspect brought to light is the increasingly widespread utilization of the internet and online to counterbalance for the inconvenience and infectious

risk of conducting onsite activities like education, work, meetings and gatherings

In the case of the COVID-19 epidemic, many schools have been altered in the education form that has opened up the whole country. It has been converted to an online study, which is very contradictory to onsite study in the classroom. It is known that this modification of online study is the reason why students will spend time with subservient media such as television, computers, tablets, or mobile phones for a long period of time.

(<https://thainews.prd.go.th/th/news/detail/TCATG210705131840368>)

From an educational article of an Aerospace Engineering student at Carleton University. Found out online classes can affect physical health. People who work at computers for long periods have reported eye discomfort and muscle strain. Students can have around 30 hours of lectures, tutorials, and labs to watch every week as well as digital assessments and projects to work on and have no choice but to be at a computer for more time than recommended. Sitting at a desk can lead to neck and back pain without proper posture, and Computer Vision Syndrome (CVS) is caused by looking at a screen for long periods. CVS results in headaches, eye strain, blurred vision, and dry eyes.

(<https://www.essco.ca/post/the-effects-of-online-education-on-physical-and-mental-health?fbclid=IwAR2SXH7AsC-vaPVy9qKY3kQoByxxmyeUC0gC-IEJmOw1tC80ktZRwwSbHJY>)

With these physical health problems obvious among students, their academic performances, as well as their whole wellbeing, may retard as the online learning

season prolongs indefinitely. Consequently, this survey-based research is conducted to study the physical health issue trends among high school students in Thailand attending daily online classes and to provide insight upon their perspective on the availability and accessibility of physical health supports which could be used as a basis for future works

Methodology:

This survey-based research is conducted through a collection of data via survey form consisted of 15 questions, divided into 3 sections including personal information, questions related to physical health problems and questions led to physical health problems that occur. The survey is sent out to a target group of 250 Thai high school students who are taking online classes as a substitute for onsite classes during the COVID-19 pandemic. By using a diagram to describe the data, analyze the effect of online classes on physical health and summarize them in the form of a lecture.

Result:

Figure No.1: Gender identity of participants



Figure No.2: Educational level of participants

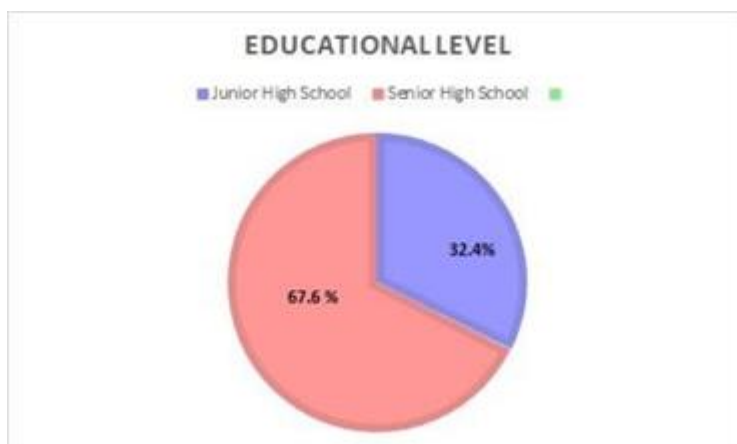


Figure No.3: Quantities of time participants taking online classes each day

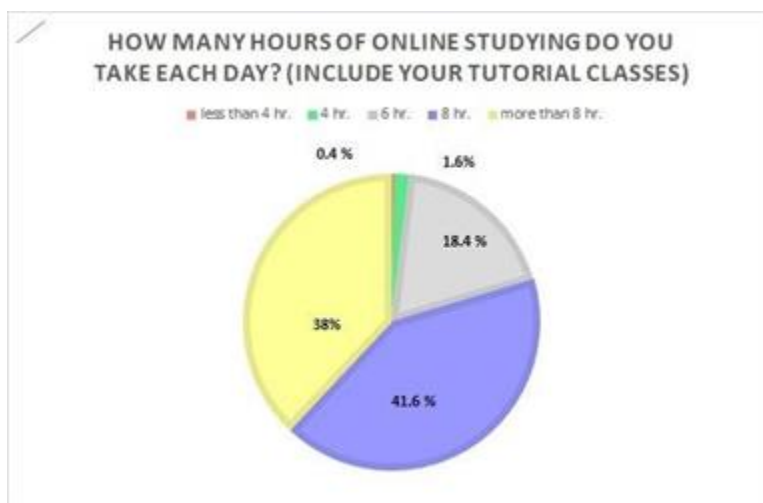


Figure No.4: Department during online classes of participants



Figure No.5: Eye Strain symptoms severity of participants

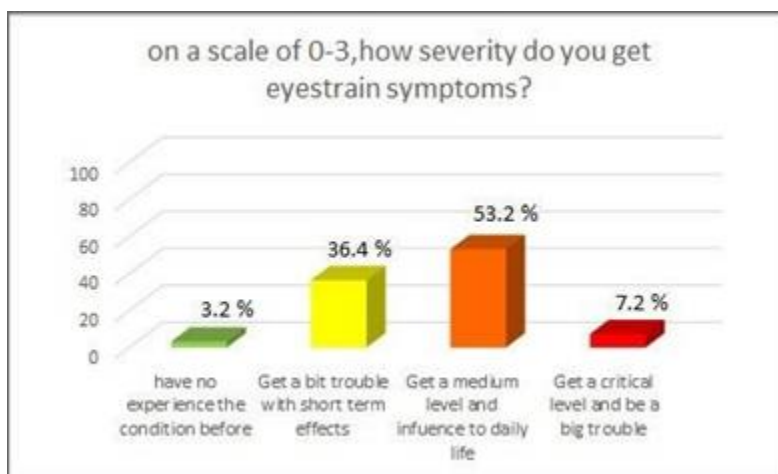


Figure No.6: Blurred vision severity of participants

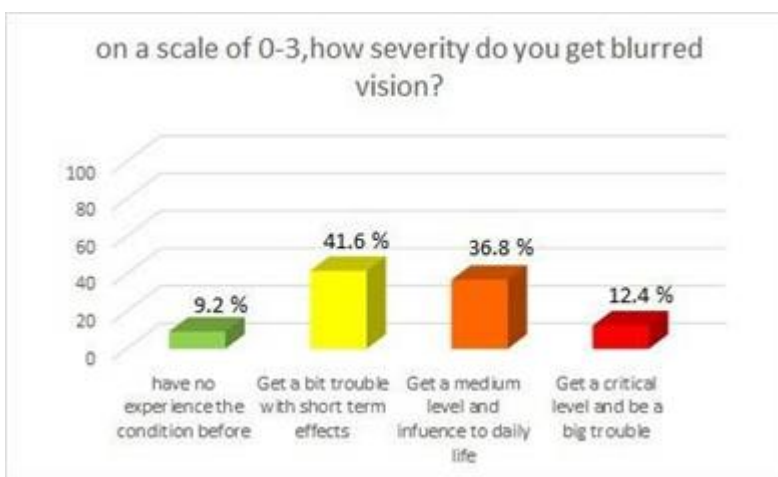


Figure No.7: Myasthenia gravis severity of participants

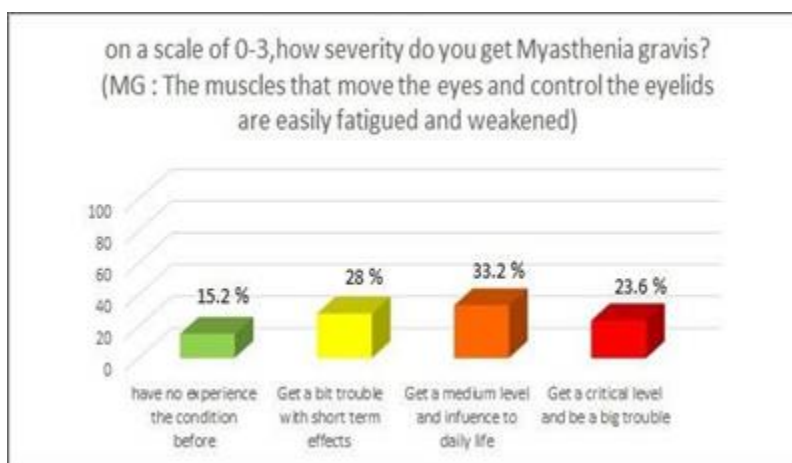


Figure No.8: Dry eye severity of participants

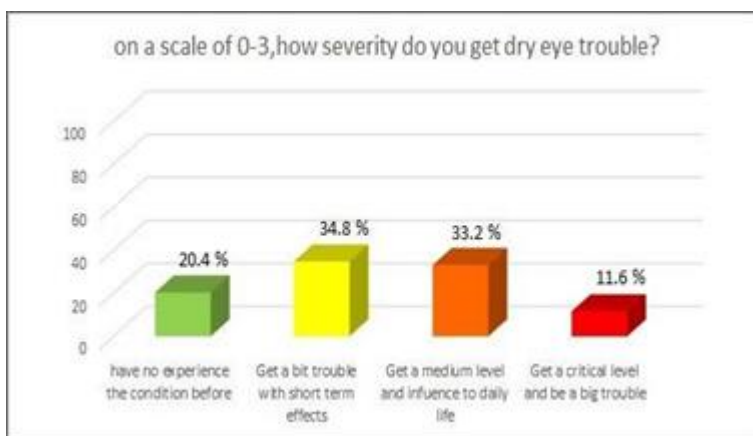


Figure No.9: Aching and tightness in shoulder severity of participants

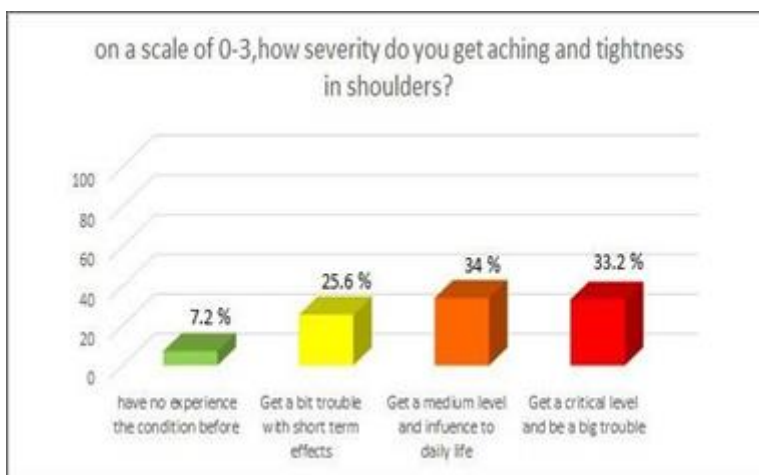


Figure No.10: Back pain trouble severity of participants

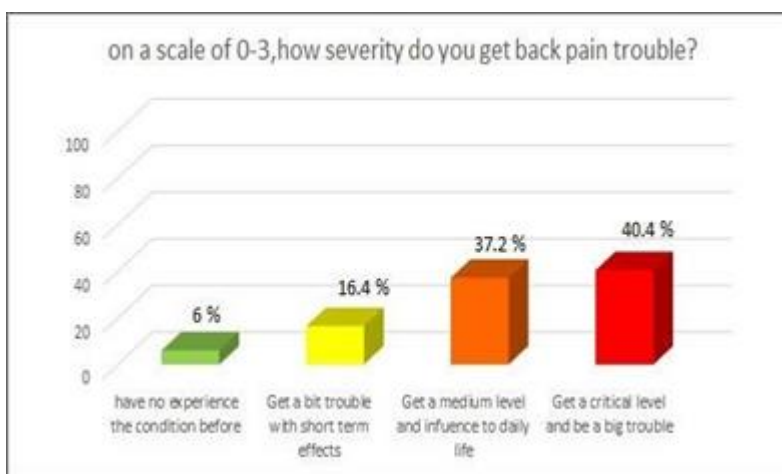


Figure No.11: Lumbago symptoms severity of participants

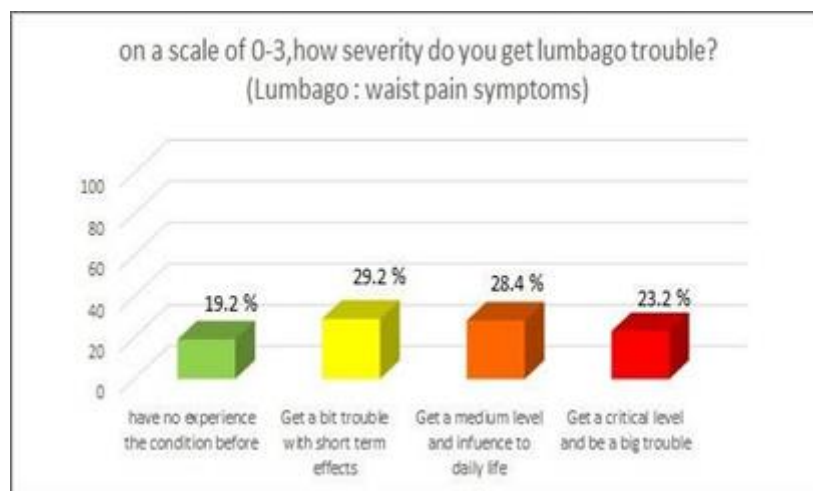


Figure No.12: Headache severity of participants

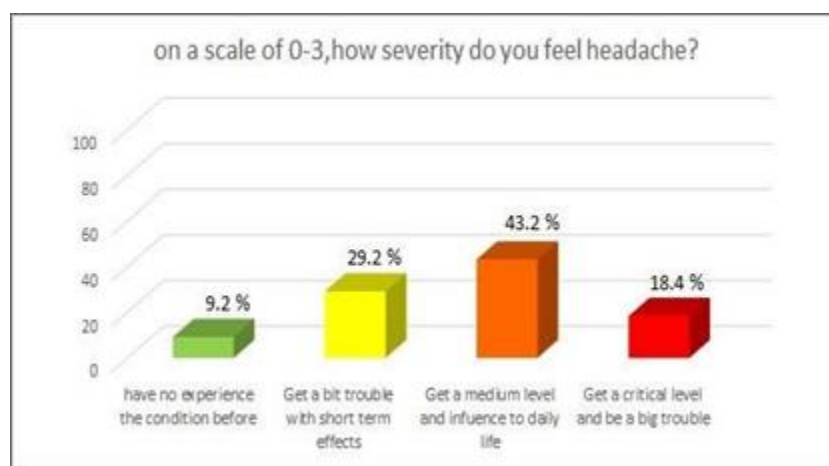


Figure No.13: Percentage of participants receiving treatment from medical professional



From the response of survey ,High school students who participated in this questionnaire are 22.4%(n=56) of male,71.2%(n=178) of female and 6.4%(n=16) of people who prefer not to say in 2 educational level (Junior high school level and Senior high school level).Most of respondents are in Senior high school level approximately 67.6%(n=169).The highest number of respondents were engaged in online learning for 8 hours per day (n=104,41.6%) followed by more than 8 hours (n=95,38%),6 hours(n=46,18.4%),4 hours(n=4,1.6%) and less than 4 hours(n=1,0.4%).For the question of deportment during online classes,The most percentages of response is sitting on the chair(n=194,77.6%), which is following by sitting on the floor (n=40,16%) and laying down during online sessions (n=16,6.4%)

The results obtained from the questionnaire reveal physical health conditions faced by high school students taking online classes. The majority of eye strain symptoms severity in teenagers are in the medium level 53.2%(n=133), followed by eye strain symptoms severity in low level 36.4% (n=91), in critical level 7.2%(n=18) and have no experience 3.2% (n=8). The majority of blurred vision severity in teenagers are in the lower level 41.6% (n=104), followed by blurred vision severity in medium level 36.2% (n=92), in critical level 12.4% (n=31) and have no experience 9.2% (n=23). The majority of Myasthenia gravis severity in teenagers are in the medium level 33.2% (n=83), followed by blurred vision severity in lower level 28% (n=70), in critical level 23.6% (n=59) and have no experience 15.2% (n=38). The majority of Dry eye severity in teenagers are in the lower level 34.8% (n=87), followed by blurred vision severity in medium level 33.2% (n=83), have no experience 20.4% (n=51) and in critical level 11.6% (n=29). The majority of Aching and tightness in shoulder severity in teenagers are in the medium level 34% (n=85), followed by critical level 33.2% (n=83) ,in low level 25.6% (n=64) and have no experience 7.2% (n=18).The majority of back pain trouble severity in teenagers are in the critical level 40.4% (n=101), followed by medium level 37.2% (n=93),in low level 16.4% (n=41) and have no experience 6% (n=15).The majority of lumbago symptoms severity in teenagers are in the low level 29.2% (n=73), followed by medium level 28.4% (n=71), in medium level 23.2% (n=58) and have no experience 19.2% (n=48).The majority of headache

severity in teenagers are in the medium level 43.2% (n=108), followed by low level 29.2% (n=73) ,in critical level 18.4% (n=46) and have no experience 9.2% (n=23).

To summarize, according to the results, the highest number of physical health condition response suffered by high school students is the eye strain symptoms in medium level 53.2%(n=133) and the physical condition which reached at critical severity is back pain trouble responded in 40.4%(n=101). Therefore, these physical health issues should be in process of accessing medical care as fast as possible.

Conclusion:

This study conducted among Thai high school students revealed significant changes in students' physical health state regarding varial of physical health issues after switching to online learning as a consequence of COVID-19 infection prevention and control. Thus, it was found that prolonged online learning periods can potentially lead high school students to various physical health problems and the severity of the problem is also related to the duration of daily online study which can result in musculoskeletal pain.

Remarkably, the majority have not received any treatment from a medical professional or any consultation. So, this is the reason why this issue should be accessed and if possible, we should organize the institution that following and giving the consults to youngsters who got physical troubles from long term online courses.

Future work:

All the information, statistics, and statements seen in this paper are allowed to be used for academic purposes and further paperwork associated in the field of business, education, medical and others related to solving physical health problems.

Acknowledgements:

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