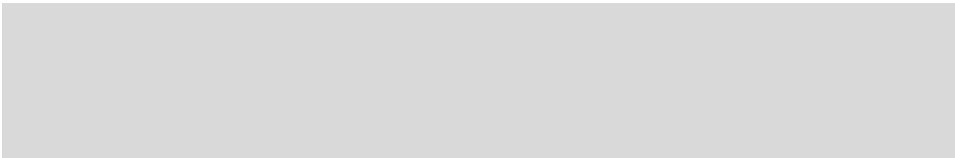
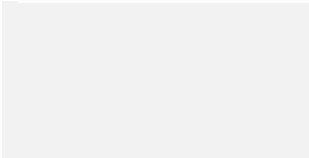


**The study of Health Related Behaviors in the Elderly living in Mae Sai District, Chiang Rai
after Experiencing Flooding**

I Antiserum and standard cells preparation section, National blood center, Thai red cross society, *THAILAND*



ABSTRACT

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Introduction: Obesity is an important health problem affecting a large proportion of the world's population because obesity is a major risk factor for many chronic health problems and diseases. Also at present Covid-19 situation continues spreadly. Students are obliged to study online from the comfort of their own house or dorms using computer displays, mobile phones, and tablets, resulting in poor eating habits, changes in sleeping behavior or physical activity. These factors may contribute to obesity.

Objective: This study aimed to determine the factors associated with obesity and the prevalence of obesity of Mae Fah Luang University students during online class in COVID-19 situation.

Methods: An analytic cross-sectional study was conducted at Mae Fah Luang University, Chiang Rai Province, Online data collection in between October, 25th to November, 15th 2021 by google form. 427 participants were randomly selected into the study.

Results: A total of 442 student participants in this study; 68.3% were female and 26.5% were aged 20 years old. The BMI comparison analysis pre-online class participants have BMI that overweight 15.6%, Obesity 15.8%. And during online class participants have an increase of BMI included; overweight 17.0% and obesity 24.0% which clearly shows the increase in body weight of the participants.

Conclusion: Recognizing the effects of obesity and applying knowledge about obesity in real life can reduce the incidence of obesity. In order to prevent obesity during online learning, students should adjust their eating habits and exercise more.

Keywords: COVID-19 situation; Factors; Obesity; Online class; Prevalence

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Introduction*

Obesity is currently a health problem affecting a large proportion of the world's population. From 1975 to 2016, the prevalence of overweight or obese children and adolescents has more than quadrupled, from 4% to 18% worldwide [1], and in 2014 to date, 19.3 million Thais are obese. And there are more than 20.8 million Thai people who have a waist circumference with belly fat. In 2018, a survey found that 11.6 percent of youth aged 18 years and over were obese [2]. Obesity is therefore considered a major health problem because obesity is a major risk factor for many chronic health problems and diseases. The main cause of obesity is related to factors related to dietary patterns, such as eating processed foods or fast food that are high in fat and sugar. and based on information currently available in clinical studies Elderly people and patients with certain health conditions, especially diabetes. and obesity are at high risk of serious illness from COVID-19 [3,4].

And now the situation of Covid-19 continues to spread, with the latest report from the World Health Organization having more than 240,940,937 cases worldwide [5,6]. This caused the number of infected people to decrease accordingly. But the situation in Thailand is still not improving. The third wave of pandemic from April 1, 2021 to October 20, 2021, there have been 1,782,989 cumulative cases reported [7]. Students are required to stay in their own homes or dorms and study online through computer screens, mobile phones and tablets, which results in eating habits. physical activity or changes in sleeping behavior from previous studies These factors may contribute to obesity. Previous studies have supported the hypothesis, In 2020, Angelo P. et al reported the impact of the COVID-19 lockdown on the lifestyle of 41 obese children living in Verona, Italy. The authors found that eating behaviors changed with an increase, consumption of sugary drinks, snacks, and red meat, sleep time, screen use has also increased too. Fruit and vegetable consumption remained unchanged, but exercise time decreased [8]. The authors also found that exercise was inversely correlated with the number of meals per day. If food intake increases, exercise decreases, and male have more meals than females. In 2020, VALENTIN F. et al. reported the problem of student eating behavior during the COVID-19 lockdown among 5,738 undergraduate students in France. The variables involved were stress, body image, overeating, and dietary restrictions. It was found that lockdown stress was associated with a tendency to overeating [9]. In 2020, Ploypareeya Ayanan studied factors related to obesity behavior among high school students aged 15-18 years in Muang District, Chiang Rai Province. As a result, it was found that high school students had low-risk behaviors of obesity and leading factors were not related to obesity behaviors. The facilitating factor in obtaining health information was positively correlated with obesity behaviors. And the social support factor was positively correlated with obesity behaviors at statistically significant levels [10]. In 2021, Clelia C. et al. reported an assessment of changes in BMI among obese or overweight children and adolescents. An analysis of possible risk factors that result in weight increased during the lockdown of the Covid-19 epidemic situation in Italy. It found that during the COVID-19 outbreak, more than half of the volunteers' eating habits consumed more homemade desserts, bread, pasta and pizza [11]. The main aim of this study was to study the prevalence of obesity and the factors that cause obesity during online learning in the situation of COVID-19 Student at Mae Fah Luang University.

Methodology*

Study design

A cross-sectional study was conducted via an online survey completely. Online data collection in between the period of October, 25th 2021 to November, 15th 2021 by google form. The questionnaire was used to collect data of factors associated with obesity among undergraduate students of Mae Fah Luang University in online class.

Sub-heading 2

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Results*

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Discussion*

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Conclusion*

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Competing Interests

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Author contributions

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References*

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In this study, there was a 28.9% prevalence of depressed symptoms among students studying public health. With some restrictions, this study demonstrated that exercise was linked to depression in students studying public health. The participants were recruited only from the School of health science in a university. Thus it's possible that the findings don't apply to all university students. Furthermore, this study used a cross-sectional design. Since its main goal was to calculate magnitude and determine the causes of unaccounted-for variables. It is necessary to validate the results of this investigation using a more reliable study design. The study also took into account some important factors, including risk behaviors and family history of depression. were not taken into account in this analysis. and ought to be incorporated into further research.

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