Research Article

# Willingness of Thai adolescent to get vaccinated against coronavirus disease 2019: A cross-sectional study in Bangkok, Thailand

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## ABSTRACT

**Background:** Coronavirus disease 2019 (COVID-19) or Coronavirus disease 2019 has rapidly affected all aspects of life around and become a major threat to public health around the world. One of the most important actions that need to be taken to stop the pandemic is vaccinations. Managing the COVID-19 pandemic in the long term, unwillingness to receive vaccinations, and negative attitudes toward vaccines are major barriers. **Objectives:** The objective of the study is to assess willing of Thai adolescents to get vaccinated against COVID-19 among high school students in Sacred Heart Convent School of Bangkok. **Materials and Methods:** The study was conducted using a questionnaire. A total of 80 students participated. Knowledge about COVID-19 and COVID-19 vaccine, Risk Perception of COVID-19 infection, and Confidence in the government in handling the pandemic. Independent t-test and ANOVA were used to analyze differences between outcomes and sociodemographic. Attitudes toward vaccination were analyzed by a generalized linear model. **Results:** This study showed that the vaccine acceptance rate was 15% and vaccine refusal was 85%. 15% of female participants accepted to be vaccinated against COVID-19 while all-male participants refused to be vaccinated against COVID-19. In the age of 17 participants, 6.25% showed the highest willingness to be vaccinated. Of the students who did not vaccinate Influenza 13.75% accepted to be vaccinated against COVID-19. Of the students who live in urban areas, 51.25% and single house 66.25% refuse to be vaccinated against COVID-19 respectively. **Conclusion:** This study indicates confidence in the government in handling the pandemic influenced the willingness to vaccinate against COVID-19.

**KEY WORDS:** Willingness; Adolescent; Coronavirus disease 2019; Vaccination

## INTRODUCTION

All viruses, including severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), the virus that causes coronavirus disease 2019 (COVID-19), change over time. Most changes have little to no impact on the virus' properties.[1] COVID-19 is an infectious disease caused by a newly discovered coronavirus. Most people infected with the COVID-19 virus will experience mild to moderate respiratory illness and recover without requiring special treatment. Older people and those with underlying medical problems such as cardiovascular disease, diabetes, chronic respiratory disease, and cancer are more likely to develop serious illness.[2] The first case of COVID-19 was reported on December. 1, 2019, and the cause was a then-new coronavirus later named SARS-CoV-2. SARS-CoV-2 may have originated in an animal and changed (mutated) so it could cause illness in humans. In the past, several infectious disease outbreaks have been traced to viruses originating in birds, pigs, bats, and other animals that mutated to become dangerous to humans. Research continues, and more study may reveal how and why the coronavirus evolved to cause pandemic disease.[3]

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Thailand was relatively successful in containing the pandemic throughout most of 2020 but has been experiencing an uncontrolled resurgent outbreak since April 2021. An initial wave of infections, mostly traced to nightlife venues and a boxing match in Bangkok, peaked on 22 March 2020 at 188 newly confirmed cases per day. As preventive measures were implemented, the outbreak subsided by May, and the country reported almost no locally transmitted infections until December when it saw a surge of infections primarily clustered around large migrant worker communities in Samut Sakhon Province. The new outbreak spread to many provinces, with a maximum daily of 959 cases reported on 26 January 2021, before partially subsiding in February. Has predicted Thailand's GDP to shrink by 6.7 percent in 2020, a revision from a previous estimated 2.5% increase.[4] The government has borrowed and announced several assistance measures, including cash handouts to those affected and a 1.9 trillion-baht (US$60 billion) stimulus package, though few people have actually received it.[5]

CDC recommends everyone 12 years and older should get a COVID-19 vaccination to help protect against COVID-19. Widespread vaccination is a critical tool to help stop the pandemic.[6] According to the CDC, after a meeting of expert advisors discussed the data Wednesday, more than 300 cases of heart inflammation have been documented after the Pfizer or Moderna COVID-19 vaccines. The cases have been seen mostly in teens and young adults between 12 and 39 years old, the agency says. Symptoms can include chest pain or pressure and a temporarily abnormal ECG and blood test results.[7] The CDC says the findings do not change the basic recommendation that all people 12 and older should be vaccinated against COVID-19. However, if a person develops myocarditis after the first dose of one of the mRNA vaccines, a second dose should be delayed until the condition has fully resolved, and the heart has returned to a normal state.[7]

## MATERIALS AND METHODS

### Participants and Procedure

This was a cross-sectional observational study. An online questionnaire was purposely developed and made available through Google Form between May 30, 2021, and July 3, 2021. All high school students who were eligible were invited to participate in the study. The invitation was sent to school social media groups. The students have access to school's social media groups, so they all receive an invitation. In this invitation, information about the objectives of the study as well as the ethical guarantee of confidentiality and anonymity in the data collected as stated in the informed consent were explained. Participation was completely free and voluntary, and no personal data were collected from any participant. Of the 80 high school students, a total of 80 students participated in the study (response rate: 100%).

### Instrument

The questionnaire was developed based on a literature review including (1) COVID-19, Chain of Infection, its transmission, COVID-19 from, i.e. WHO, CDC] (2) studies performed on the same topic where several common items were used to assess each of the dimensions analyzed in this study. The proposed items were then grouped, and redundant items were removed.

A preliminary version of the instrument was reviewed by an infection control specialist and two researchers in the field to validate its content. A pre-test was then performed with a small sample of high school students to test for comprehension and difficulty. All the questions were reminded without modifications. The psychometric characteristics of the questionnaire were tested, as described in the statistical analysis subsection.

The final version of the questionnaire contained 32 questions; ten about sociodemographic data (gender, age, year level, have a congenital disease, weight, parent's occupation, vaccinate influenza, residential area, housing type) and 22 items divided into three sections.

Knowledge about COVID-19 and COVID-19 vaccine: this scale consisted of 15 statements related to COVID-19 related knowledge; COVID-19 disease, its transmission, prevention, protective equipment, COVID-19 vaccine. The participants were asked to choose the correct answer from multiple choices of four. One point was assigned to each correct answer while providing an incorrect answer received zero points. The sum of all items was made hence higher scores corresponded to a higher level of knowledge. Cronbach's alpha for the scale calculated with the sample of this study was acceptable.

Risk Perception of COVID-19 infection: this scale was composed of 20 items, and response categories consisted of a five-point Likert scale (from 1-strongly disagree, to 5 agree) with the highest score corresponding to more positive Risk Perception of COVID-19 infection. Some items on the scale were inverted for the analysis. A sum of all the items was made to obtain a score. The "Risk Perception of COVID-19 infection" factor consisted of 4 items and varied from 4–20 and the higher values corresponded to a more positive Risk Perception of COVID-19 infection.

Confidence in the government in handling the pandemic: this scale referred to the number of preventive behaviors adopted and included two items; confidence in the government to provide the COVID-19 vaccine and Confidence in the government in tackling the COVID-19 outbreak. Each item was answered using a five-point scale (From 1-Never to 5-Always), with one point assigned to each behavior that was always practiced. The number of behaviors practiced

was added up. A high score on this scale indicated good preventive behaviors, ranging from 2–10.

### Statistical Analysis

The analysis was performed using SPSS, version 26. To analyze psychometric characteristics of the scales, an exploratory factor analysis, using principal component analysis with varimax rotation, was carried out. Reliability was analyzed through the calculation of item-total correlation coefficients and Cronbach's alpha ($\alpha$) for the scales of the questionnaire. The descriptive analysis was presented in absolute (n) and relative (%) frequencies, mean (M), and standard deviations (SD). To assess the differences between the outcome variables (Knowledge about COVID-19 and COVID-19 vaccine, Risk Perception of COVID-19 infection, Confidence in the government and willingness to vaccinate against COVID-19) and the sociodemographic characteristics, considering the sample size, independent t-test and the ANOVA were used as appropriate. The correlations between the outcomes of the study were calculated by Pearson's correlation. Lastly, a generalized linear model was calculated to determine the predictive variables of the preventive behaviors. Exp ($\beta$) and the respective 95% confidence intervals (95% IC) were presented. Statistical significance was defined as $P < 0.05$.

## ETHICAL CONSIDERATIONS

This research uses an anonymous data collection method to collect data from grade 10–12 Students of Bangkok, Thailand, using Google form. The invitation was sent to the school's social media groups. In these invitations, information about the study's objectives and the ethical guarantee of confidentiality and anonymity in the data collected as stated in the informed consent was explained. Participation was completely free and voluntary, and no personal data were collected from any participant.

## RESULTS

This study comprised a total of 80 students. The sociodemographic characteristics of the sample are presented in Table 1 Most students were female (n = 63, 78.8%). Most students' ages were 17 ($n$ = 45, 55%) followed by 18 and above years of age group ($n$ = 24, 30%) and 16 and below years of age group ($n$ = 12, 15%) respectively. Most students were in the Science-Mathematics program ($n$ = 52, 65%), had no congenital disease ($n$ = 59, 73.8%) and had a criteria weight ($n$ = 59, 73.8%). Most of the parent's occupation are business owners ($n$ = 28, 35%), student vaccinated Influenza ($n$ = 62, 77.5%) and not vaccinated ($n$ = 18, 22.5%). Most of the student's live in urban areas ($n$ = 52, 65%) and live-in single houses ($n$ = 57, 71.3%).

Regarding knowledge about the COVID-19 vaccine, students reveal poor Knowledge about the COVID-19 vaccine, correctly answering a mean of 6.36 (SD = 1.77) questions out of a total of 15. Females showed higher knowledge scores (M = 6.40, SD = 1.76) than male students (M = 6.24, SD = 1.86). Age groups of 18 and above show the highest related knowledge score of 7.00 (SD = 1.84). For the study program, students who were in the Science-Mathematics program had the highest COVID-19 vaccine-related knowledge score of 6.50 (SD = 1.77). Students who had no congenital disease and were underweight had the highest COVID-19 vaccine-related knowledge score of 6.44 (SD = 1.75) and 6.57 (SD = 1.27) respectively. Students whose parents are employees and officials showed the highest COVID-19 vaccine-related knowledge score of 6.65 (SD = 1.75). Students who vaccinated Influenza and lived in suburban areas had the highest COVID-19 vaccine-related knowledge score of 6.50 (SD = 1.80) and 6.39 (SD = 1.77) respectively. The students who lived in condominiums/apartments/dormitories had the highest COVID-19 vaccine-related knowledge score of 7.33 (SD = 2.06).

Students showed a low level of Risk Perception of COVID-19 infection with an average score of 10.63 from 20 full scores. The female showed a higher risk perception of COVID-19 infection scores 10.86 (SD = 4.58) than male students 9.76 (SD = 4.22). Age groups of 18 and above showed the highest risk perception of COVID-19 infection 10.88 (SD = 4.01) followed by 17 years of age group 10.84 (SD = 4.71), respectively. The students who studied in a Language-Arts program and had no congenital disease showed the highest risk perception scores of COVID-19 infections 11.08 (SD = 4.25) and 11.34 (SD = 4.38) respectively. The students who had criteria weight showed the highest risk perception scores of COVID-19 infections 10.81 (SD = 4.49). Students whose parents are health care workers, police, teachers, and soldiers showed the highest risk perception scores of COVID-19 infections 13.20 (SD = 2.70) followed by freelance 12.83 (SD = 3.86) and employee/official 10.17 (SD = 5.23) respectively. The students who vaccinated Influenza showed the highest risk perception scores of COVID-19 infections 10.95 (SD = 4.50) than the students who did not vaccinate Influenza 9.50 (SD = 4.46). The students who lived in urban areas and condominiums/apartments/dormitories showed the highest risk perception scores of COVID-19 infections 11.33 (SD = 4.42)

Regarding confidence in the government in handling the pandemic, students reveal poor confidence in the government in handling the pandemic with an average score of 2.83 from 10 full scores. Females 18 and above years of age showed the highest confidence in the government in handling the pandemic of 2.95 (SD = 1.79) and 3.33 (SD = 2.28), respectively. Students who studied in the EnglishMathematics program showed the highest confidence in the government in handling the pandemic of 3.57 (SD = 2.30) followed by Science-Mathematics 2.96 (SD = 1.78) and others 2.50 (SD = 1.07) respectively. Students who had no congenital disease and had a criteria weight showed the highest confidence in the

**Table 1:** Differences in outcomes according to the sociodemographic characteristics of participants (*n*=80)

| Sociodemographic Characteristic | *n* (%) | Knowledge about COVID-19 and COVID-19 vaccine (Range 0-15) | | Risk perception of COVID-19 infection (Range 4-20) | | Confidence in the Government in handling the pandemic (Range 2-10) | |
|---|---|---|---|---|---|---|---|
| | | Mean | S.D. | Mean | S.D. | Mean | S.D. |
| Gender | | | | | | | |
| Male | 17 (21.3) | 6.24 | 1.86 | 9.76 | 4.22 | 2.35 | 0.86 |
| Female | 63 (78.8) | 6.40 | 1.76 | 10.86 | 4.58 | 2.95 | 1.79 |
| Age | | | | | | | |
| 16 and below | 12 (15) | 6.00 | 1.86 | 9.33 | 4.79 | 3.08 | 1.73 |
| 17 | 44 (55) | 6.11 | 1.66 | 10.84 | 4.71 | 2.48 | 1.09 |
| 18 and above | 24 (30) | 7.00 | 1.84 | 10.88 | 4.01 | 3.33 | 2.28 |
| Program | | | | | | | |
| Science-Mathematics | 52 (65) | 6.50 | 1.77 | 10.92 | 4.75 | 2.96 | 1.78 |
| English-Mathematics | 7 (8.8) | 6.29 | 1.25 | 9.00 | 4.04 | 3.57 | 2.30 |
| Language- Arts | 13 (16.3) | 6.46 | 2.07 | 11.08 | 4.25 | 2.08 | 0.28 |
| Others | 8 (10) | 5.38 | 1.69 | 9.38 | 3.70 | 2.50 | 1.07 |
| Having Congenital Disease | | | | | | | |
| No | 59 (73.8) | 6.44 | 1.75 | 11.34 | 4.38 | 2.93 | 1.78 |
| Yes | 21 (26.3) | 6.14 | 1.85 | 8.62 | 4.32 | 2.52 | 1.21 |
| Weight | | | | | | | |
| Underweight | 7 (8.8) | 6.57 | 1.27 | 10.43 | 5.80 | 2.71 | 0.95 |
| Criteria weight | 59 (73.8) | 6.36 | 1.85 | 10.81 | 4.49 | 2.86 | 1.76 |
| Overweight | 14 (17.5) | 6.29 | 1.77 | 9.93 | 4.10 | 2.71 | 1.54 |
| Parent's Occupation | | | | | | | |
| Business owner | 28 (35) | 6.14 | 1.86 | 9.46 | 4.32 | 3.18 | 2.31 |
| Employee/Official | 23 (28.7) | 6.65 | 1.75 | 10.17 | 5.23 | 2.78 | 1.35 |
| Freelance | 12 (15) | 6.42 | 1.44 | 12.83 | 3.86 | 2.17 | 0.39 |
| Health Care/Teacher/Police/Soldier | 10 (12.5) | 6.30 | 2.16 | 13.20 | 2.70 | 3.30 | 1.25 |
| Housewife/Others | 7 (8.8) | 6.29 | 1.80 | 9.29 | 3.82 | 2.00 | 0.00 |
| Vaccinated influenza | | | | | | | |
| Yes | 62 (77.5) | 6.50 | 1.80 | 10.95 | 4.50 | 2.95 | 1.81 |
| No | 18 (22.5) | 5.89 | 1.64 | 9.50 | 4.46 | 2.39 | 0.85 |
| Residential area | | | | | | | |
| Urban | 52 (65) | 6.35 | 1.79 | 10.96 | 4.52 | 3.04 | 1.91 |
| Suburb | 28 (35) | 6.39 | 1.77 | 10.00 | 4.49 | 2.43 | 0.92 |
| Housing type | | | | | | | |
| Single House | 57 (71.3) | 6.33 | 1.63 | 10.46 | 4.40 | 2.54 | 1.24 |
| Townhouse | 11 (13.8) | 5.45 | 1.81 | 10.73 | 5.41 | 2.73 | 1.10 |
| Condominium/Apartment/ Dormitory | 12 (15) | 7.33 | 2.06 | 11.33 | 4.42 | 4.25 | 2.83 |
| Total | 80 (100) | 6.36 | 1.77 | 10.63 | 4.50 | 2.83 | 1.65 |

government in handling the pandemic 2.93 (SD = 1.78) and 2.86 (SD = 1.76), respectively. Students whose parents are health care workers, police, teachers, and soldiers showed the highest confidence in the government in handling the pandemic 3.30 (SD = 1.25). The students who vaccinated Influenza showed higher confidence in the government in handling the pandemic 2.95 (SD = 1.81) than the students who had not vaccinated Influenza 2.39 (SD=0.85). The students who lived in urban areas and condominiums/ apartments/dormitories showed the highest confidence in the government in handling the pandemic 3.04 (SD = 1.91) and 4.25 (SD = 2.83), respectively.

Results from the study showed that from a total of 80 participants, the vaccine acceptance rate was 15% ($n$ = 12) and vaccine refusal was 85% ($n$ = 68). 15% ($n$ = 12) of female

participants accepted to be vaccinated against COVID-19 while all-male participants refused to be vaccinated against COVID-19. In the age of 17 participants, 6.25% ($n$ = 5) showed the highest willingness to be vaccinated, followed by the age of 18 years and above 5% ($n$ = 4) and 16 and below 3.75% ($n$ = 3), respectively. Of the students who study in Science-Mathematics programs, 12.5% ($n$ = 10) accepted to be vaccinated against COVID-19 while all Language-Art students refuse to be vaccinated against COVID-19. The students who have congenital disease showed the acceptance to be vaccinated against COVID-19 0f 61.5% ($n$ = 49). The students with criteria weight showed the highest refuse to be vaccinated at 65% ($n$ = 52). The students whose parents are business owners showed the highest acceptance to be vaccinated against COVID-19 of 7.5% ($n$ = 6) while the students whose parents are employees/officials showed the highest refusal to be vaccinated against COVID-19 of 22.5% ($n$ = 18). Of the students who did not vaccinate Influenza 13.75% ($n$ = 11) accepted to be vaccinated against COVID-19. Of the students who live in urban areas, 51.25% ($n$ = 41) and single house 66.25% ($n$ = 53) refuse to be vaccinated against COVID-19, respectively [Table 2].

**Table 2:** Differences in outcomes according to the sociodemographic characteristics of participants ($n$=80)

| Participant characteristic | *n* | Willingness to be vaccinated against COVID-19 (%) | | |
|---|---|---|---|---|
| | | Yes (%) | No (%) | *P* |
| Gender | | | | 0.051 |
| Male | 17 | 0 (0) | 17 (21.25) | |
| Female | 63 | 12 (15) | 51 (63.75) | |
| Age | | | | 0.484 |
| 16 and below | 12 | 3 (3.75) | 9 (11.25) | |
| 17 | 44 | 5 (6.25) | 39 (48.75) | |
| 18 and above | 24 | 4 (5) | 20 (25) | |
| Program | | | | 0.382 |
| Science-Mathematics | 52 | 10 (12.5) | 42 (52.5) | |
| English-Mathematics | 7 | 1 (1.25) | 6 (7.5) | |
| Language-Arts | 13 | 0 (0) | 13 (16.25) | |
| Others | 8 | 1 (1.25) | 7 (8.75) | |
| Having Congenital Disease | | | | 0.413 |
| No | 59 | 10 (12.5) | 2 (2.5) | |
| Yes | 21 | 49 (61.25) | 19 (23.75) | |
| Weight | | | | 0.383 |
| Underweight | 7 | 2 (2.5) | 5 (6.25) | |
| Criteria Weight | 59 | 7 (8.75) | 52 (65) | |
| Overweight | 14 | 3 (3.75) | 11 (13.75) | |
| Parent's Occupation | | | | 0.273 |
| Business owner | 28 | 6 (7.5) | 22 (27.5) | |
| Employee/Official | 23 | 5 (6.25) | 18 (22.5) | |
| Freelance | 12 | 1 (1.25) | 11 (13.75) | |
| Health Care/Teacher/Police/ Soldier | 10 | 0 (0) | 10 (12.5) | |
| Housewife/Others | 7 | 0 (0%) | 7 (8.75%) | |
| Vaccinated influenza | | | | 0.202 |
| Yes | 62 | 11 (13.75) | 1 (1.25) | |
| No | 18 | 51 (63.75) | 17 (21.25) | |
| Residential Area | | | | 0.036 |
| Urban | 52 | 11 (13.75) | 41 (51.25) | |
| Suburb | 28 | 1 (1.25) | 27 (33.75) | |
| Housing type | | | | 0.004 |
| Single House | 57 | 4 (5) | 53 (66.25) | |
| Townhouse | 11 | 3 (3.75) | 8 (10) | |
| Condominium/Apartment/ Dormitory | 12 | 5 (6.25) | 7 (8.75) | |
| Total | 80 | 12 (15) | 68 (85) | |

Results from a binary logistic regression indicated that the confidence in the government in handling the pandemic (Beta = 0.056, $P < 0.01$) had a statistically significant effect on the willingness to vaccinate against COVID-19 Table 3.

## DISCUSSION

Results indicated that confidence in the government in handling the pandemic had a statistically significant effect on the willingness to vaccinate against COVID-19 (average score of 2.83 out of 10). Consistent with.[8] conducted a study about A global survey of potential acceptance of a COVID-19 vaccine found that countries, where acceptance exceeded 80%, tended to be Asian nations with strong trust in central governments (China, South Korea, Singapore). However, in contrast with this study in which confidence in the government in handling the pandemic revealed poor.

Regarding knowledge about COVID-19 and COVID-19 vaccines, students revealed poor knowledge about COVID-19 and COVID-19 vaccines. Consistent with.[9] conducted a study about knowledge, attitudes, and preventive behaviors toward COVID-19: A study among high school students in Bangkok found that students had a moderate level of

**Table 3:** Binary logistic regression prediction of willingness to vaccinate against COVID-19

| Intercept | B | SE | Sig | Exp (β) |
|---|---|---|---|---|
| Gender | −20.554 | 7362.546 | 0.998 | 0.000 |
| Age | 2.315 | 3.388 | 0.494 | 10.126 |
| Parent's occupation | 1.023 | 1.118 | 0.360 | 2.780 |
| Knowledge about COVID-19 and COVID-19 vaccine | 0.273 | 0.716 | 0.703 | 1.314 |
| Risk Perception of COVID-19 infection | −0.050 | 0.218 | 0.817 | 0.951 |
| Confidence in the Government in handling the pandemic | −2.886 | 1.467 | 0.049 | 0.056 |

knowledge. In addition, Consistent with.[10] conducted a study about the Knowledge, Attitude and Practice Toward COVID-19 Pandemic Among Population Visiting Dessie Health Center for COVID-19 Screening, Northeast Ethiopia. Founded that "the magnitude of poor knowledge (48.7%) in this study was found to be higher than study reports from Kenya, USA, Bangladesh, and China, which is mainly attributed to differences in access for electricity and internet for accessing social media and other reliable sources of information". In this study Students revealed a low level of risk perception of COVID-19 infection. This may be due to the increase of infection during August 2021.[11] The government's Covid-19 task force says students at schools in Bangkok and other dark red provinces will not have on-site classes while infection rates remain high."[12] Thus, making students feel safer. Furthermore, students were not in a marital situation. Consistent with.[13] conducted a study about The Willingness to Receive COVID-19 Vaccine and Its Associated Factors: "Vaccination Refusal Could Prolong the War of This Pandemic" founded that "This could also affect the willingness of the individual towards this vaccine, while married individuals have relatively a feeling of more responsibility because of their collective family responsibilities". It indicated that confidence in the government in handling the pandemic had a statistically significant effect on the willingness to vaccinate against COVID-19 This may be due to the government not rarely providing easy to access news. Moreover, "the overload of information may have caused confusion and difficulty ascertaining correct information."[10]

This study collected data with online forms, respondents may use the internet to search for answers. The survey was conducted during the COVID-19 outbreak and the lockdown measure, during lockdown the students were learning online. This may cause respondents not to feel for risk perception of COVID-19 infection.

This study showed that the vaccine acceptance rate was 15% and vaccine refusal was 85%. 15% of female participants accepted to be vaccinated against COVID-19 while all-male participants refused to be vaccinated against COVID-19. In the age of 17 participants, 6.25% showed the highest willingness to be vaccinated. Of the students who study in Science-Mathematics programs, 12.5% accepted to be vaccinated against COVID-19 while all Language-Art students refuse to be vaccinated against COVID-19. The students who have congenital disease showed the acceptance to be vaccinated against COVID-19 0f 61.5%. The students with criteria weight showed the highest refuse to be vaccinated at 65%. The students whose parents are business owners showed the highest acceptance to be vaccinated against COVID-19 of 7.5% while the students whose parents are employees/officials showed the highest refusal to be vaccinated against COVID-19 of 22.5%. Of the students who did not vaccinate Influenza 13.75% accepted to be vaccinated against COVID-19. Of the students who live in urban areas, 51.25% and single house 66.25% refuse to be vaccinated against COVID-19, respectively.

## CONCLUSION

The present study indicates that confidence in the government in handling the pandemic had a statistically significant effect on the willingness to vaccinate against COVID-19.

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