The Association between Motivation Prevention and Acceptance Vaccine Services for Prevention and Control of the COVID-19 on University Students in Thailand

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Abstract:- These research tool has linked to the questionnaire online of during the August 2021 period. The population of 8,567 and a sample of 348 people used a systematic random sampling method. Data analysis was used by Pearson correlation for productive analysis and to predict the association of motivation prevention used to stepwise multiple regression statistics. The results showed that perceived severity, perceived probabilities, self-efficiency, response efficacy, and cost acceptance have a positive association between motivation prevention and acceptance vaccine services for prevention and control of the COVID-19 on university students in Thailand. Of Those have performances identifies of statistically significant of association level of.01 ($r = 0.593$; P-value <0.001, $r = 0.609$; P-value <0.001, $r = 0.726$; P-value <0.001, $r = 0.653$; P-value <0.001, $r = 0.541$; P-value <0.001) respectively. As a result, self-efficiency, acceptance, response efficacy, and cost acceptance were performed at the highest significance level of.01 ($R^2 = 0.527$; P-value <0.001, $R^2 = 0.570$;P-value <0.001, $R^2 = 0.597$; P-value <0.001). However, we flashlight that the three independent variables relied on to predict association of the motivation prevention and the acceptance vaccination services of the COVID-19 on university students in Thailand was 59.7% ($R^2 = 0.597$).

Keywords:- *Motivation Prevention, COVID-19 Vaccine, Student.*

I. INTRODUCTION

The coronavirus disease 2019 also has pandemics that are still caused by the coronavirus strain without the latest search expected to be an emerging infectious disease. The outbreak began in Wuhan, Hubei Province, People's Republic of China. Around the end of December 2019, the COVID-19 is mainly spread from person to person, spread the germs through droplets, nose or mouth that without expelled the patient coughs or sneezes. These contracted with germs through breathing or by putting your hand to touch the surface with the nebulizer [1]. The period of infection and symptoms and the incubation period ranged from 1-14 days, with an average of 5-6 days and more than 97% of patients started showing symptom means within 14 days. [2] Currently, the COVID-19 pandemic is severe by greatly expanding the violence against individuals, groups of people and organizations on many continents in every corner of the world. Especially the COVID-19 epidemic in Thailand has infected that more than 1,120,869 cumulative cases, 923,621 (82.40%) cumulative of total recovered and discharged from hospitals, 186,934 (17.69%) cumulative of undergoing treatment and 10,314 (0.92%) cumulative of deaths. [3] Currently, vaccination is gradually being given to the elderly 60 years and over, people with congenital diseases in the seventh chronic disease [4]. The previous pandemic was within the age range between 18-59 years and staff and students in universities across the country. Acceptance vaccination service of prevention the COVID-19 against was may the best way. Those could reduce the spread and reduce the severity of symptoms and reduce the mortality rate. Then, these also were considered one of the performances tools [4, 5]. To prevent and control the pandemic on students, helping to protect the medical personnel and front-line volunteers of the COVID-19. Especially, university students, 60 years old and over, persons with congenital diseases in 7 chronic disease groups public with the age range between 18-59 years old and staff and students in universities across the country safe from the COVID-19 for accepting vaccination services to prevention and control the COVID-19 into the body. It is the reception of biological substances that stimulate the body to build immunity by working as a "sparring partner" for the body to practice natural disease prevention mechanisms to be able to recognize and are ready to fight off germs [6, 7]These have varies acceptance vaccine service more than 60-90%, that recombinant viral vector vaccines, such as adenovirus, can prevent mild patient illness from the COVID-19 infection as well as deaths [8-10]. In addition, the properties of each vaccine that are different management are also differences such as storage temperature, the number of needles to be injected (In most cases of 2 injections) are required, or the amount of time between each injection from such information the study team [11, 12]. Therefore, to pay safe attendance by conducting research studies on incentive factors for disease prevention [13] affecting the acceptance of vaccination services for the

COVID-19 of university students in Thailand. This research was to identities of the motivation prevention factors for preventing the COVID-19 [14]. And plan for vaccination services and develop vaccination service operations and to be effective and efficient.

II. OBJECTIVES

➢ To identifies levels the association between motivation prevention theory and acceptance vaccination services of prevention and control the COVID-9 infection among university students in Thailand.

➢ To predicts the association between motivation prevention and acceptance vaccination services of prevention and control the COVID-19 on university students in Thailand.

III. METHOD

A. Research Scope

In this study, the research team applied Roger's motivation prevention [14] to the following areas of study:

B. Scope of Contents

➢ *Area of studies, population, and time*

These research used to university student in Thailand based on bachelor degree regular program (Monday Friday) and special program (Saturday Sunday) every year, all 7 faculty (Faculty of science and technology, Faculty of education, Faculty of humanities and social sciences, Faculty of management science Faculty of industrial technology, Faculty of agricultural technology, Faculty of public health) 1 college (Innovation college managing director) collection of data by used the questionnaire as a Google form via a mobile application or computer, population 8,567 and the survey was period of August 4, 2021.

C. Population And Sample Size

➢ Target population was selected from the target population of the research study, namely university students in Thailand total 8,567 peoples[15]

➢ Sample size set number of samples by selecting from the target population of the research study with Daniel's proportional estimation formula [16] as follows:

$$n = \frac{Z_{\alpha/2}^2 \cdot Pq}{d^2}$$

when n = sample size

$Z_{\alpha/2}^2$ = standard normal distribution value of 95%CI $(Z_{\frac{\alpha}{2}=0.025 or 1.96})$

P= proportion estimate (0.654)

q = Allowable error (0.05)

$$n = \frac{(1.96)^2 (0.654)(0.346)}{0.05^2}$$

$$n = \frac{0.869383}{0.0025}$$

$$n = 347.71 \approx 348$$

D. Samplings

➢ *In the pre-study as a blow:*

• Used to the finding the number of sample sizes here to at least a sample of the study arrangements are sufficient and reliable educational team. Therefore, the populations and sample groups were selected 8,567 people from university students in Thailand.

• Selected to the populations and groups such as university students 8,567 people came to calculate of the sampling interval which used to the formula for calculating of systematic sampling [17]

$$I = \frac{N}{n}$$

when   I = sampling interval
        N = 8,567

-total of population on university students in Thailand of (N)8,567
-sample size of (n)348

$$I = \frac{8,567}{348}$$
$$I = 24.6 \approx 25$$

• Once the sampling interval was calculated equal to 25, the sample was then determined from university students of 8,567 people using a systematic randomization method by sorting the list sequence according to the student code of each Faculty until everyone is complete by drawing 8,567 people, after that, put them in a container to find the random start the first sample of between position 1 and position 25 get position 25 once the starting position is obtained. Subsequently, the following samples were selected (25, 50, 75,…,In+ 25) until complete for a sample of 348 people.

➢ In the study, the research team conducted a Systematic Random Sampling.

E. Research Tools

➢ Types and characteristics of tools conducting research studies Use the questionnaire at the research team has created a tool. The data collection consists of 3 parts as follows:

• The first, personal information includes gender, age, marital status, student type, educational level, year, faculty, course/field, has been advised by anyone to get vaccinated, needs to be vaccinated, currently receiving vaccination services, yes or no, most were advised by whom to get vaccinated, and vaccine service was given and if given the opportunity to choose injections, any brand of the COVID-19 vaccine will choose which brand to get the question type was closed-ended, 14 items.

- The second, there are 5 components of motivation in preventing disease affecting receiving vaccination services for the COVID-19: perceived severity of the COVID-19, perceived risk of disease the COVID-19 infection, self-efficacy against COVID-19infection, acknowledgment of the efficacy of the COVID-19 vaccine and acknowledgment of the cost of the COVID-19 vaccine.

- The third, there are 5 components to receive vaccination services against the COVID-19: the COVID-19 vaccination target group survey the COVID-19 vaccination service, surveillance of side effects, the COVID-19 vaccination service, and vaccination results reporting

➤ Creating a questionnaire researchers created a questionnaire based on Rogers' disease prevention motivation theory, research papers and related research and used to create questionnaires step-by-step creation let's start by defining the information and indicators of the variables studied to cover complete according to the content and definitions of terms take the questionnaire prepared. To a specialist to verify accuracy and up to date some information as appropriate as follows:

- The questionnaire was obtained from 3 experts for index of objective congruence (IOC).

- The questionnaire was used to conduct research studies with the sample group which have similar characteristics or consistent (pilot study) of 30 sets of content accuracy and precision (reliability) greater than or equal to .60 or more is acceptable.

- The confidences test of reliability was used to the questionnaire has been revised. According to the suggestion of advisors and experts, the experiment was conducted with a sample group of 30 students from a university student in Subhan Buri province. Then used to calculate the confidence of the questionnaire by calculating Cronbach's alpha value equal to 0.967.

➤ The Likert's scale questionnaire was studied as a guideline for question-and-answer generation and interpretation. [18]

F. Data Collections
➤ Data collection was a sample start sending closed-ended questionnaires through the line group system student and graduate club of the university by attaching a Google form link as a representative for submitting a link to answer the questionnaire. However, Google forms where general information includes gender, age, educational level, status, year, etc.
➤ Safeguarding and preventing prejudice in information to respondents the student club and student organization can explain the details of the questionnaire response based on university students answering the questionnaire by listening to the explanation of the objectives/importance and benefits of providing information. Then proceeded to answer the questionnaire via Google from the sample group provided in the pieces of information according to the facts and can cancel the survey at any time. When the information from the questionnaire via Google form is complete, the research team take data analysis as the next step.

G. Data Analysis
➤ Descriptive Statistics personal data perform an analysis of individual data by doing the distribution of frequency, find the number and percentage of each answer and income age variables to find the mean, maximum, minimum, and standard deviation (in case of normal distribution data presents the standard deviation, mean; in case of abnormal distribution data presents the range and the highest-lowest value)

➤ Inferential Statistics
- Analysed each item by doing a frequency distribution to find the number and percentage of answers. Each item is classified according to 5 components: perceived severity of the COVID-19, perceived risk of the COVID-19, self-efficacy to prevent viral infection the COVID -19, the efficacy of the COVID-19 vaccine and the cost acceptance of the COVID-19 vaccine.
- Determine the level of motivation to prevent disease by scoring the answers to the questions. Each item according to the specified criteria included the score of each respondent, classified into 5 components: perceived severity of the COVID-19 perceived risk exposure of the COVID-19 infection, self-efficacy towards the COVID-19 prevention, the COVID-19 vaccine efficacy acceptance and the COVID-19vaccine cost acceptance: standard deviation, mean, percentage of full score, lowest score, highest score, and then divide the association into 5 level that criteria of [13]
- Used Pearson statistic (Pearson Product Moment Correlation), also known as "Finding the Pearson's correlation coefficient" by finding the correlation between the parent variable and the dependent variable individually (Bivariate Analysis), where both variables were measured at not less than the interval scale or ratio scale) and has a normal distribution. [19]
- Research team all independent variables to be analysed were paired with covariate analysis by finding the relationship between personal characteristics such as sex, age, marital status, educational level, year, and disease prevention motivation factor receiving vaccination services against the COVID-19. An analysis of the relationship between the two variables. The research team used independent translators for all variables that want to be analysed matched with the dependent variable one by one using a two-tailed statistical significance test (Two - Tailed), the statistical significance (P-value) was set at the .05 level, but if the significance level was less than .05, it indicates that the correlation coefficient between the independent variable and dependent variable for each pair is statistically significant.
- Data Analysis for predicting the COVID-19 vaccination service by personal attribute factors disease prevention incentives using stepwise multiple regression analysis

- Presentation of information regression coefficient by setting the statistical significance levels to .05

IV. RESULT AND DISCUSSIONS

From the results of the research study on Coronavirus infection prevention and control on university students in Thailand which can discuss the results according to each detail as follows:

➢ Association affect university students of receiving vaccination services for the COVID-19 infection.

From the results of the data analysis, it was found that the association affecting the university students access to the COVID-19 vaccination service was statistically significant. The details are as follows:

Association of motivation prevention of the COVID-19was found that the overall picture of motivation factors for prevention and control of the COVID-19 was moderately associated. Positively, the statistical significance of the .01 level was r = 0.624; P-Value < 0.001against the COVID-19 vaccination services among students in Thailand.

The association of motivation prevention of the COVID-19was found that the students who had perceived the severity of the COVID-19 is moderate the association coefficient was 0.593, meaning that the perceived severity of the COVID-19 was not related to the vaccination service for the COVID-19 infection among university students with a moderate perception of the risk of the COVID-19. The association coefficient was 0.609, i.e., perceived risk of the COVID-19 was not related to receiving vaccination services against the COVID-19. There was no associated with receiving vaccination services for the COVID-19 infection. Students with a high level of self-efficacy against the COVID-19 had a association coefficient of 0.726, i.e., self-efficacy against the COVID-19 infection is related to receiving vaccination services against the COVID-19 students with a moderate acceptance of the efficacy of the COVID-19 vaccine, the association coefficient was 0.653, that is, the acceptance of the efficacy of the COVID-19 vaccine was related to the receipt of the COVID-19 vaccination service and university students with high acceptance of the cost of the COVID-19 vaccine. The association coefficient was 0.541, meaning that the cost acceptance of the COVID-19 vaccine was associated with the receipt of the COVID-19 vaccination service, which this study was consistent with the results education of [20]. A study of motivation factors for disease prevention affecting influenza vaccination services in Saen Suk sub-district elderly Muang Chon Buri district, Chonburi province found that their ability to prevent influenza associated with influenza vaccination services only one side where the chi- square is 0.003.

When looking for opportunities for influenza vaccination services found that the risk rate (OR) was 2.486, indicating that Elderly people with self-efficacy have a higher chance of protecting themselves from influenza. statistically significant at the .05 level. And in line with the results of the study of [21] said that factors influencing health promotion behaviors in prevention Coronavirus 2019 (Covid 19) infection among the elderly: a case study of the elderly living with nursing student Huachiew Chalermprakiet University The self-efficacy factor (ß=0.313, P-value < 0.001) was statistically significant at the .05 level and consistent with the results of the study [22] said the factors related to the decision to vaccinate against influenza In the elderly with chronic illnesses : a case study in Ubon Ratchathani province, it was found that the perception of risk opportunities and disease severity Adjusted OR=0.43; (95% CI = 0.220 to 0.840, P-value<0.05) with statistical significance at the .05 level, consistent with the results of the study [23] said a comparison of motivation for vaccination services and associated factors among physicians, nurses, people in Taiwan: Taiwan case study found that perceived severity and perceived cost in response to vaccination services were significantly higher vaccine. There was a positive correlation with motivation for receiving vaccination services in the public with a statistical significance of .05. And in line with the results of the study by [24] Prophylactic motivation theory for predicting the intention of receiving the COVID-19 vaccination services in Iran: A case study in Iran found that the perceived severity of the COVID-19 (ß= 70, P-value < 0.001) is a key predictor of intent to receive vaccine of the COVID-19)ß =17, P-value < 0.001) Receive self-efficacy)ß =0.26, P-value < 0.001) and perceived response efficiency of the COVID-19 vaccine was statistically significant at the .05level. However, if considering the individual aspects of the motivation factors for preventing the COVID-19 infection, it was found that the self-efficacy has a high level of relationship Positive way of receiving vaccination services against the COVID-19 of university students in Thailand statistically significant at the .01 level.)r = 0.726; P-Value < 0.001)respectively. The cost acceptance aspect of the COVID-19 vaccine, the perceived severity of the COVID-19, the COVID-19 risk perception aspect, and the efficacy acceptance aspect. The statistical significance of the COVID-19 vaccine was moderately positively associated with the student's exposure to the COVID-19 vaccination services at the .01 level)r = 0.541; P-Value < 0.001), (r = 0.593; P-value < 0.001), (r = 0.609; P-Value < 0.001) and)r = 0.629; P-Value < 0.001) respectively. This is consistent with the study of [21] said that factors influencing health promotion behaviors.

V. DISCUSSIONS

Conflicts of Interest
The author declares have no-conflict of interest with journal exists

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