

# ผลของโปรแกรมการส่งเสริมความรู้ พฤติกรรม และภาวะผู้นำอย่างแท้จริงในการป้องกันโควิด-19 ของอาสาสมัครสาธารณสุขประจำหมู่บ้าน ตำบลบุงฉนวน อำเภอชัยใหญ่ จังหวัดชัยภูมิ

## Effects of Knowledge Behavior and an Authentic Leadership Enhancement Program for COVID-19 Prevention among Village Health Volunteers, Buchuanan Sub-district, Sap Yai District, Chaiyaphum Province

นิพนธ์ต้นฉบับ

Original Article

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### บทคัดย่อ

**วัตถุประสงค์:** เพื่อศึกษาผลของโปรแกรมการส่งเสริมความรู้ พฤติกรรม และภาวะผู้นำอย่างแท้จริงในการป้องกันโควิด-19 ของอาสาสมัครสาธารณสุขประจำหมู่บ้าน **วิธีการศึกษา:** การวิจัยกึ่งทดลองแบบศึกษากลุ่มเดียววัดผลก่อนและหลัง ตัวอย่างเป็นอาสาสมัครสาธารณสุขประจำหมู่บ้านใน ต.บุงฉนวน อ.ชัยใหญ่ ชัยภูมิ 35 คน โดยเลือกแบบเจาะจง การทดลองใช้โปรแกรมการส่งเสริมความรู้ พฤติกรรม และภาวะผู้นำอย่างแท้จริงในการป้องกันโควิด-19 ช่วงกรกฎาคมถึง สิงหาคม 2565 รวบรวมข้อมูลทั่วไป และประเมินความรู้ในการป้องกันโรคโควิด-19 พฤติกรรมในการป้องกันโรคโควิด-19 ภาวะผู้นำอย่างแท้จริงในการป้องกันโรคโควิด-19 ที่ก่อนและหลังโปรแกรม ทดสอบความแตกต่างของคะแนนความรู้ พฤติกรรม และภาวะผู้นำอย่างแท้จริงฯ ก่อนและหลังโปรแกรมโดย paired sample t-test **ผลการศึกษา:** หลังจากได้รับโปรแกรมฯ ค่าเฉลี่ยคะแนนความรู้ พฤติกรรม และภาวะผู้นำอย่างแท้จริงในการป้องกันโควิด-19 สูงกว่าก่อนการทดลองอย่างมีนัยสำคัญทางสถิติที่ระดับ 0.01 **สรุป:** พยาบาลหรือบุคลากรสุขภาพสามารถนำโปรแกรมการส่งเสริมความรู้ พฤติกรรมและภาวะผู้นำอย่างแท้จริงในการป้องกันโควิด-19 ไปใช้ในอาสาสมัครสาธารณสุขประจำหมู่บ้านที่อื่น โดยให้สอดคล้องกับบริบทของชุมชนและสถานการณ์แพร่ระบาดของโควิด-19

**คำสำคัญ:** โปรแกรม; ความรู้; ภาวะผู้นำอย่างแท้จริง; พฤติกรรมป้องกันโควิด-19; อาสาสมัครสาธารณสุขประจำหมู่บ้าน

### Abstract

**Objective:** To examine benefits of the program to promote knowledge, behavior, and authentic leadership in preventing COVID-19 among village health volunteers. **Methods:** This quasi-experimental research with a single-group pre-post design had 35 village health volunteers in Buchuanan subdistrict, Sap Yai district, Chaiyaphum province selected by purposive sampling. The experimental program was conducted from July to August 2022. Demographic characteristics were collected. Knowledge, behavior, and authentic leadership were assessed before and after the program. Scores of knowledge, behavior, and authentic leadership before and after the program were compared using paired sample t-test. **Results:** After the program scores of knowledge, behavior, and authentic leadership improved significantly ( $P$ -value < 0.001). **Conclusion:** Nurses and other healthcare providers could use the program to enhance knowledge, behavior, and authentic leadership in preventing COVID-19 for among village health volunteers in other places with a concern of difference of context and COVID-19 outbreak situation.

**Keywords:** program; knowledge; authentic leadership; COVID-19 prevention behavior; village health volunteers

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## Introduction

The COVID-19 outbreak first occurred in China in December 2019 and there has been a severe outbreak throughout the world until now. It affects the physical, mental, social and economic conditions of people. It also affects both the micro and macro levels of the country.<sup>1</sup> COVID-19 patients have symptoms in the respiratory system, including fever, cough, mucus, shortness of breath and difficulty breathing. There may be other systemic symptoms as well such as loss of smell, loss of taste, rash, red eyes, and diarrhea.<sup>2</sup> In very severe cases, the patient might face acute respiratory distress

syndrome, thromboembolism, acute kidney injury, heart complications, sepsis, multi-organ failure syndrome and death. In some patients who recover from the infection, symptoms may remain, including fatigue and dyspnea being the most common symptoms. The second most common symptom is fatigue after activity (post-exertional malaise), loss of sense of smell and taste (ageusia) and hair loss (alopecia).<sup>3</sup> As for the outbreak situation, it was found that at the end of 2021, there were several people infected with COVID-19 around the world, specifically 286,858,755 cases, 5,445,958 deaths, equivalent

to 1.89%. There were 90,208 people infected with severe symptoms who are still being treated, equivalent to 0.03%.<sup>4</sup> It was found that the regions that reported the highest number of cumulative confirmed cases were America, which found 93,711,700 infected people, accounting for 38%, followed by Europe (77,231,883 infected people or 31%), and Southeast Asia (44,005,474 infected people or 18%).<sup>5</sup> In Thailand, it was found that there were 2,223,435 infected people, ranking the 4th in Southeast Asia after Indonesia (4.26 million cases), the Philippines (2.84 million cases) and Malaysia (2.75 million cases), the disease rate was 31,735 cases per million population. It was the second highest number after Malaysia (83,507 cases per million population) and had a death rate of 310 cases per million population. It was ranked the 4<sup>th</sup> after Malaysia (954 cases per million population), Indonesia (519 cases per million population) and the Philippines (460 cases per million population), respectively.<sup>4</sup>

Chaiyaphum province is a province that has experienced an outbreak of COVID-19. From the situation report of the Chaiyaphum Provincial Public Health Office, it was found that in 2021 there were 12,435 people infected with COVID-19. There were 132 cumulative deaths, accounting for 1.06%. From January to March 2022, infected people were found. There were a total of 11,933 infections, with 1,405 cases in January, 5,881 cases in February, and 4,647 cases in March, indicating a continuous upward trend.<sup>6</sup> Chaiyaphum province has implemented the Chaiyaphum Model Project "Chaiyaphum people don't leave each other" bringing Chaiyaphum people living in other provinces back home for treatment in various hospitals and 2 field hospitals in Mueang district. They prepared a plan to deal with more patients returning to the area, with 1 field hospital per 1 subdistrict health promoting hospital to send patients back for treatment at the field hospital in the subdistrict health promoting hospital that has domicile. There was also disease control using treatment at home (home isolation) for patients who were infected but asymptomatic. This would help field hospitals to focus on managing beds for seriously ill patients. In addition, measures to control and prevent the spread of COVID-19 have been implemented. These ask for cooperation from the people to strictly follow public health measures, including wearing a mask, washing their hands often, maintaining social distancing, and scanning the Thai Chana application.<sup>7</sup> However, the campaign to control the spread of the disease could not be fully effective. Some people did not strictly follow

outbreak control measures. Although the number of patients was small, the infection was easily transmitted and spread quickly. Therefore, there was a high chance of spreading the disease. This may be caused by a lack of knowledge. People might not see the benefit or the importance of disease control measures.<sup>8</sup> This was one of the causes of the risk of disease causing an impact on oneself and creating a lot of treatment costs, leading to an impact on the country's economy and total higher health costs.

Village health volunteers (VHVs) were the main force in preventing and controlling the spread of COVID-19 at the community level with the campaign "VHVs knocking doors to fight COVID-19." They proactively carried out 4 missions specifically 1) knock on doors to inform people and provide knowledge and advice, 2) screen normal and at-risk groups, 3) refer at-risk groups to the nearest public health officials, and 4) follow up and visit to report results.<sup>9</sup> Village health volunteers needed to adapt to the changes in the operating environment that are changing rapidly, including good disease prevention knowledge and behavior. To behave correctly to be safe from COVID-19 disease, they are role models for the people, and recommended knowledge and behavior as important leaders for people in the community in preventing COVID-19 disease.<sup>10</sup> From the past epidemiological survey of the Buchanan Subdistrict Health Promoting Hospital in 2021, there have been no COVID-19 patients found in Buchanan subdistrict, Sap Yai district, Chaiyaphum province. However, some people have returned from high-risk areas and measures. They must be taken to prevent and control the spread of COVID-19 in the area. Village health volunteers play an important role and are the main force in doing so. According to a study of the authentic leadership of head nurses and the job advancement of nurses in a public university hospital, it was found that authentic leadership has a positive relationship with job advancement, power to work, and learning nurses. This explains that authentic leaders can make progress in their work.<sup>11</sup> This could imply that leadership among other factors could be crucial for performance of the village health volunteers, as one of the healthcare providers.

From the literature review, it was found that factors that make village health volunteers perform their duties efficiently depend on the perception of their ability to successfully carry out that mission. It was found that village health volunteers' overall perception of self-efficacy in caring for physical and mental health in the community had a high positive

relationship with behavior in caring for community physical and mental health. This could be achieved by integrating the concept of self-efficacy theory of Bandura, which states that the perception of self-efficacy is a factor related to the performance of health-promoting behaviors of individuals. In addition, proper learning will lead to confidence in practice and can be applied in real situations.<sup>12</sup> Therefore, a program to allow village health volunteers to learn to enhance their knowledge, behavior, and authentic leadership in preventing COVID-19 is of great concern.

From the above situation, the researcher aimed to determine the results of the program to promote knowledge, behavior, and authentic leadership in preventing COVID-19 of village health volunteers. The researcher conducted the research at Buchanan subdistrict, Sap Yai district, Chaiyaphum province. The concept of self-efficacy theory of Bandura was applied. The knowledge, behavior, and authentic leadership in preventing COVID-19 among village health volunteers before and after receiving the program were compared. Specifically, this study aimed to compare scores of knowledge, behavior, and authentic leadership in preventing COVID-19 disease before and after the experiment program.

## Methods

In this quasi-experimental research, the experimental program was applied with a one-group pre-post design. The study population was 63 village health volunteers (VHVs) in Buchanan subdistrict, Sap Yai district, Chaiyaphum province. The study sample was 35 of those study population. The sample size was determined using the G \* Power program.<sup>13</sup> With an effect size of 0.5, a type I error of 5% and a power of 80%, a sample size of 27 participants was needed. To compensate for a drop-out rate of 30%, a total of 35 participants were required. A purposive sampling was done by specifying qualifications according to the inclusion criteria which were 1) village health volunteers in Buchanan subdistrict, Sap Yai district, Chaiyaphum province both male and female, 2) with at least 1 year of experience working as a village health volunteer, and 3) with a good conscience and ability to read and write. The criteria for exclusion were 1) not voluntarily participating in the trial program or moving or not staying in the area while the trial was being conducted, or 2) being suddenly ill to the point of being unable to participate in the trial program.

### Research instruments

The instruments consisted of a questionnaire and the educational program. The **first part** of the questionnaire collected **demographic characteristics** of the participants including gender, age, marital status, education, income, main work or occupation. The **second part** assessed **knowledge measures** for COVID-19 disease prevention. The researcher asked for permission to use the tool of Yeunyw et al.<sup>14</sup>, Of the 15 questions, 12 items were positive statements while 3 were negative ones. A score of 1 point was rewarded for a correct answer, and 0 point otherwise. With a possible total score of 0 – 15 points, levels of knowledge were categorized as low, medium, and high (0 – 8, 9 – 11, and 12 – 15 points, respectively) Based on Bloom's criteria.<sup>15</sup>

The **third part** evaluated COVID-19 disease **preventive behavior**. The 20 questions were from the work of Choojai et al.<sup>16</sup> The response was a 5-point rating scale ranging from 1-never practice, to 2-rarely practice, 3-sometimes practice, 4-frequently practice, and 5-practice every time. Levels of the preventive behavior were categorized as low, medium, and high (1.00 – 2.33, 2.34 – 3.66, and 3.67 – 5.00 points, respectively) based on Best's criteria.<sup>17</sup>

In the **fourth part**, **authentic leadership** was assessed using 16 questions from the work of Sikkhaphan.<sup>18</sup> The scale consisted of 4 domains namely transparency, ethics, justice, and self-awareness. The response was a 4-point rating scale ranging from 1-never, to 2-sometimes, 3-often, and 4-most often. Levels of authentic leadership were categorized as low, medium, and high (1.00 – 2.00, 2.01 – 3.00, and 3.01 – 4.00 points, respectively) based on Best's criteria.<sup>17</sup>

The **second instrument** was the **educational program** to promote knowledge, behavior, and authentic leadership in preventing COVID-19 of public health volunteers. It is developed from the theoretical framework of self-efficacy theory of Bandura<sup>19</sup>, with 4 factors that promote the perception of self-efficacy specifically experience of having been successful yourself, seeing examples of practice from others, social persuasion, and physical and emotional conditions. Activities guided by the theory were group and individual activities as follows.

For **group activities**, the **first activity** was lectures using multimedia. Participants were shown with the model through watching a video about COVID-19 disease and its

complications. The participants were encouraged to discuss and summarize the issues of learning. This session took 8 hours. The **second activity** of the program was showing examples of authentic leadership roles in preventing the spread of COVID-19, to be ready to provide empirical information. According to the elements of authentic leadership, the content included self-awareness, ethical perspective, fairness and transparent operations. Together they planned actions to prevent COVID-19 disease. The session took 8 hours. The **third activity** led participants to demonstrate and practice how to prevent the spread of COVID-19 using the DMHTTA method including physical distancing (D: Distancing), wearing a hygienic mask (M: Mask wearing), hand washing (H: Hand washing), temperature measurement (T: Temperature), COVID-19 testing (T: Testing), and using the application (A: Application Thaichana). The participants were shown with video media, and allowed to arrange the environment to be comfortable, relax the body and promote continuous provision. The session took 8 hours, 3 times weekly. In the **fourth activity**, the participants engaged in meditation and volunteer leadership activities with society. It took 8 hours. The **fifth activity**, the participants self-assessed risks for health conditions, including self-measurement of body temperature, exchanging knowledge of practice results from other people, praising and reinforcing to increase confidence in performing, giving advice and using persuasive words along with reviewing knowledge and summarizing activities, and strengthening oneself-response through discussion of methods for risk assessment of health conditions. The session took 8 hours.

For **individual activities**, using telephone tracking, the researcher followed up the participant once a week for 4 consecutive weeks, from week 1 to week 4 and after completion of the experimental program in weeks 4 and 8 to provide reminders. Participants were asked about various problems and obstacles. They were promoted to keep monitoring and promoting disease prevention behavior through encouragement, advice, stimulation, stress relief, and observation.

#### **Quality assurance of the research instruments**

The researcher requests permission to use the instrument to collect data. It has content validity as follows: Knowledge measurement about COVID-19 of Yeunyaw et al.<sup>14</sup> has an

Index of Item-Objective Congruence (IOC) between 0.67-1.00. COVID-19 disease prevention behavior questionnaire of Choojai et al.<sup>16</sup> and the questionnaire on authentic leadership according to self-perception of Sikkhaphan<sup>18</sup> had a Content Validity Index (CVI) of .88 and .86, respectively.

Determine the reliability of the research instrument (Reliability) by testing it with a similar sample group of 30 people and the results of the analysis of the knowledge measure about COVID-19 using the Kuder-Richardson (KR-20) were equal to 0.89. The questionnaire analysis of COVID disease prevention behaviors was analyzed and a questionnaire on authentic leadership based on one's own perception by finding the alpha correlation coefficient of Cronbach's Alpha Coefficients have values equal to 0.83, 0.78, respectively.

#### **Data collection procedure**

The researcher contacted the Director of the Health Promoting Hospital, Buchanuan subdistrict, Sub Yai district, Chaiyaphum province for permission. Once permitted, the researcher approached prospective participants for screening for eligibility. All information about the voluntary nature and process of the study was provided and the written informed consent was obtained.

The experiment and data collected was conducted from July to August 2022. Before the experiment, data of demographic characteristics were collected and knowledge measures for COVID-19 disease prevention, COVID-19 disease preventive behavior, and authentic leadership were evaluated. In week 1, the group activities were conducted. Activity sessions were held 5 times in week 1. Sessions for individual activities and follow-up were conducted 5 times in weeks 1 to 4 and week 8. After the experiment, knowledge measures for COVID-19 disease prevention, COVID-19 disease preventive behavior, and authentic leadership were evaluated.

#### **Ethical protection for participants**

The study was approved by the Human Research Ethics Committee at Chaiyaphum Rajabhat University (approval number: 1-005/2022 HE 65-1-002; approval date: 7 June 2022). The participants were informed about the objectives, process, and voluntary nature of the study. The participants could withdraw from the study at any time with no negative consequences. Informed written consent was obtained before

participation. The researcher keeps the data confidential and anonymous and reports the overall results of the research.

### Data analysis

Descriptive statistics including frequency with percentage and mean with standard deviation were used to summarize demographic characteristics and study variables of the participants. Within-group comparisons of scores of knowledge measures for COVID-19 disease prevention, COVID-19 disease preventive behavior, and authentic leadership before and after the experiment were done using paired t test or Wilcoxon signed rank test, as appropriate. Statistical significance was set at a type I error of 5% (i.e., P-value < 0.05). All statistical analyses were performed using the software program SPSS version 20.

## Results

Of the total of 35 village health volunteer participants, the majority were female (94.29%), and middle-aged and late adults (45.71%) (Table 1). Most had junior high school (48.57%), followed by senior high school (34.29%), and primary school (17.14%). Most had more than 5 years of experience as a village health volunteer (54.29%), followed by 1 - 3 years (22.86%), 4 - 5 years (20.00%). All reported having received information about the Covid-19 virus and tracking channels. Most followed Covid-19 news via Facebook or Line (77.14%), followed by television (65.71%) and village news towers (62.86%); while the least viewed channel was the Internet (54.29%) (Table 1).

**Table 1** Demographic characteristics of the participants (N = 35).

Demographic characteristics	N	%
<b>Gender</b>		
Male	2	5.71
Female	33	94.29
<b>Age</b>		
Early adulthood (18 - 30 years)	3	8.57
Middle adulthood (31 - 45 years)	16	45.71
Late adulthood (46 - 60 years)	16	45.71
<b>Education level</b>		
Primary school	6	17.14
Junior high school	17	48.57
Senior high school	12	34.29
<b>Experience as a village health volunteer</b>		
Less than 1 year	1	2.86
1 - 3 years	8	22.86
4 - 5 years	7	20.00
More than 5 years	19	54.29
<b>Receiving knowledge about the COVID-19 virus</b>		
Yes	35	100.00

Channels for news about the COVID-19 virus*		
Facebook or Line	27	77.14
Television	23	65.71
News tower	22	62.86
Internet	19	54.29

\* More than one answer was applicable.

Mean score of **knowledge** in preventing COVID-19 increased from  $8.80 \pm 0.93$  points (low level) before the program to  $14.62 \pm 0.68$  points (high level) after the program with statistical significance (P-value < 0.001) (Table 2). Mean score of **behaviors** to prevent COVID-19 disease also increased from  $3.23 \pm 0.53$  points (moderate level) before the program to  $3.81 \pm 0.46$  points (high level) after the program with statistical significance (P-value < 0.001). Mean score of **authentic leadership** in preventing COVID-19 disease also increased from  $2.18 \pm 0.67$  points (moderate level) before the program to  $2.87 \pm 0.62$  points (moderate level) after the program with statistical significance (P-value < 0.001) (Table 2).

**Table 2** Levels of knowledge, behavior, and authentic leadership in preventing COVID-19 disease of the participants before and after the program (N = 35).

Variable	Mean	S.D.	Level	T test	P-value
<b>Knowledge for preventing COVID-19 disease</b>					
Before the experiment	8.80	0.93	Low	27.119	< 0.001
After the experiment	14.62	0.68	High		
<b>Behaviors to prevent COVID-19 disease</b>					
Before the experiment	3.23	0.53	Moderate	-4.584	< 0.001
After the experiment	3.81	0.46	High		
<b>Authentic leadership in preventing COVID-19 disease</b>					
Before the experiment	2.18	0.67	Moderate	-4.391	< 0.001
After the experiment	2.87	0.62	Moderate		

## Discussions and Conclusion

This quasi-experimental study with a single group pre-post design showed that after the educational program, village health volunteers had the average scores of knowledge, behavior, and authentic leadership in preventing COVID-19 significantly higher than those before the program.

The improvement in knowledge score could be because of the activities that provided information through the media. The content presented in videos included COVID-19 disease and its complications. The participants were led to discuss and summarize what they had learned. This finding is consistent with the study of Simsiriwat et al where they studied the effect of enhancing self-efficacy on knowledge perception of one's abilities and behaviors promoting the control of thalassemia

anemia among public health volunteers in Bangkok.<sup>20</sup> They found that after the experiment, the experimental group had more improvement in knowledge about promoting and controlling thalassemia anemia than the group. A study of Kowtragool and Danpreeda tested the effects of the self-efficacy promotion program on knowledge and behavior in preventing coronary heart disease in type 2 diabetes patients.<sup>21</sup> They found that after receiving the program, the experimental group had an average knowledge score higher than before entering the program and higher than the control group with statistical significance (P-value < 0.001).

In terms of behavior, in the program, there were demonstration activities and practices to prevent the spread of COVID-19 using the DMHTTA method and to promote continuous provision 3 times a week regularly. The participants assessed their own risk of health conditions, including measuring body temperature and exchanging knowledge on the results of health conditions. There was the use of words and persuasion along with reviewing knowledge and summarizing activities to enhance self-response through discussion of methods for risk assessment of health conditions. Telephone follow-up was used for reminders to ask about problems and obstacles. The participants were followed up by the research team to promote healthy behavior, give advice, stimulate, relieve stress, observe and prevent the spread of COVID-19. This could involve building skills and influencing individuals to behave. According to the theory of self-efficacy, these follow-up activities promoted awareness of one's abilities through learning sources. The participants learned from success through one's actions. They also saw the experience of the model. The use of persuasive words was a way to build morale and confidence in one's ability to perform various activities and promote physical and emotional well-being. This is an important factor that could increase one's ability to change health behaviors and be able to successfully practice the behavior.<sup>22</sup> This is in line with the research of Swangsap and Chuchuen who studied the perception of self-efficacy in the behavior of taking care of physical and mental health in the community of village health volunteers.<sup>12</sup> They found that overall community physical and mental health of village health volunteers had a highly positive relationship with community physical and mental health care behaviors with statistical significance ( $r = 0.79$ , P-value < 0.05). Our finding is also consistent with the research of Champapee et al examining the effectiveness of the self-

efficacy building program on knowledge, attitude, and behavior in caring for COVID-19 infected surgical patients of operating room nurses Mahasarakham Hospital.<sup>23</sup> They found that the experimental group that received the self-efficacy building program had improved caregiving behavior for infected surgical patients with statistical significance (P-value < 0.001). A person has knowledge and understanding about the content of any matter, which will result in that person practicing good health.<sup>24</sup>

In terms of authentic leadership, the program had activities to role-play leadership in preventing the spread of COVID-19. It was aimed to help the participants ready to provide empirical information based on the elements of authentic leadership, including self-awareness. Ethical perspective, fairness and transparent operations worked together to plan actions to prevent COVID-19 disease. The program included volunteer leadership activities with society, which allowed them to develop authentic leadership in preventing COVID-19 disease. The activities could stimulate the participants to truly assume leadership roles. This could result in a greater understanding of the duties of health leadership. The sequence of work and the role of caring for the people created an understanding of practice that could give the individuals the skills to express themselves in that matter. Self-awareness is being aware of who the person is, where it comes from, and what to do. This would enable the person to have good self-control and become responsible in his or her personal life and at work. Those aspects are what the person adopts and develop one's own life to perfection.<sup>25</sup> This is in line with the research of Nonsee et al who studied the use of role-playing in simulation situations on the knowledge, skills and attitude of shift transfer using the SBAR technique of first-year Bachelor of Nursing Science students.<sup>26</sup> They found that nursing students taught by role-playing in simulation situations had significantly higher skills than those in the group taught by lecture (P-value < 0.05). This shows that activities promoted the importance of having authentic leadership

Based on our findings, nurses and other health providers could implement the program to promote knowledge and authentic leadership in COVID-19 prevention for village health volunteers under the context of the community and the COVID-19 outbreak situation. It suggests that there should be research in the form of expanding areas to implement programs to promote knowledge and authentic leadership in preventing COVID-19 to a wider geographical area.

Our study has certain limitations. With the Covid-19 pandemic that limited access to the study setting, scheduled research conduct was delayed from the plan. Since it was a quasi-experiment, the results could face certain biases. Future full experimental study with control should be conducted.

In conclusion, village health volunteers, Buchanuan subdistrict, Sap Yai district, Chaiyaphum province had their scores of knowledge, behavior, and authentic leadership in preventing COVID-19 significantly higher than those before the program. This program could be used to promote the potential of village health volunteers to prevent and control the spread of COVID-19.

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