

The Participatory Management Guidelines to Prevent the Spread of COVID-19 in the Community of Local Administrators in Chachoengsao Province, Thailand

Nawasanan Wongprasit¹ and Wichit Saengsawang^{2*}

¹ Faculty of Nursing, Rajabhat Rajanagarindra University, Thailand. Email: nawasanan.won@rru.ac.th

² Independent Scholar. *Corresponding Author Email: wssw_9@hotmail.com

Abstract

The objectives of this mixed-methods research were to: 1) study the context, the participatory management, problems encountered, and solutions regarding participatory management to prevent the spread of COVID-19; 2) identify the participatory management factors that affect the prevention of the spread of COVID-19; 3) create participatory management guidelines to prevent the spread of COVID-19; 4) evaluate the participatory management guidelines to prevent the spread of COVID-19 of local administrators in Chachoengsao Province, Thailand. The key informants for qualitative approach consisted of 23 local administrators in Chachoengsao Province, selected in the study by using the purposive sampling technique. Data were collected through In-depth interviews and analyzed by content analysis. The sample for quantitative approach consisted of 400 adults in Chachoengsao Province, aged 20-59 years. The sample size was calculated in proportional to size of the listed districts; the respondents were selected by using the stratified sampling method and then simple random sampling technique. Data were collected through the questionnaires and analyzed using statistics such as frequency, percentage, mean, standard deviation, Pearson correlation coefficient, and multiple regression analysis. Then, five people were drawn for group discussion to confirm the participatory management guidelines. The research results were found as follows: 1) Contexts, participatory management, problems encountered and solutions regarding participatory management to prevent the spread of COVID-19, it was found that local administrators at all levels had analyzing the causes of community problems, meeting for planning and solving problems, setting, and implementing work schedules by relying on the participation of all parties. There were team working, monitoring and evaluating performance daily and regularly, creating motivation and encouragement to work, solving problems and obstacles as soon as they were encountered. They had publicized information to all parties, and informed various movements to prevent the spread of COVID-19, which were continuously beneficial to society and the community. The encountered problems included lack of good communication and coordination, not received cooperation from the public, such as allowing them to pass through screening checkpoints in various places, location of field hospitals, establishments and quarantine of people suspected of being infected with COVID-19. The solutions to the problem had established including discussion, training, review, and improving knowledge. There were meetings to participate in clear management plans, mobilizing resources from both the government sector and the community itself to monitor and evaluate performance periodically. And there was morale enhancement. 2) Participatory management factors that affected the prevention of the spread of COVID-19. It was found that the participatory management factors had four aspects: planning, implementing as planned, monitoring and evaluating, and returning benefits to the community affected prevention of the spread of COVID-19 of local administrators in Chachoengsao Province. They could jointly predict the prevention of the spread of COVID-19 of local administrators in Chachoengsao Province for 97.90% with statistical significance at the .01 level. 3) Create participatory management guidelines to prevent the spread of COVID-19 which included four steps of participatory management as

follows: Step 1: Participation in planning. The participatory process contained different activities including analyzing the problem, setting work guidelines, and planning the meetings of all sectors; there were the public, private, public, schools, and temples. Step 2: Participation in the plan implementation. This process contained different activities including following the guidelines, working as a team, and being committed to work. Step 3: Participation in monitoring and evaluation. This process contained activities including checking work regularly, following daily by leaders and providing positive encouragement. Step 4: Participation in returning benefits to the community which contained different activities including sharing knowledge, expanding your network, and public relations. 4) Evaluate the participatory management guidelines to prevent the spread of COVID-19 of local administrators in Chachoengsao Province, Thailand. It was found that 100 percent of the experts confirmed the participatory management guidelines as a completely participatory management approach and could be used effectively in real situations.

Keywords: Participatory Management, COVID-19, Local Government Organizations, Thailand.

BACKGROUNDS AND SIGNIFICANCE OF THE PROBLEM

COVID-19 outbreak is an emerging infectious disease that spreads through the respiratory system. It started with the illness of people in Hubei City, China and quickly spread all over the world in just three months. This has affected the tremendous impacts on the economy, society, education, politics, and public health of people around the world. Until now, there has been no adequate vaccine to prevent the disease, resulting in the deaths of many people around the world (Work point news, 2021). Chachoengsao Province has the number of new COVID infections and accumulated of 27 people from 18 December 2020 to 7 March 2021, ranked at 17th in the country (Department of Disease Control, 2021). There are also at-risk groups of people who must be quarantined to observe symptoms according to the measures of several provinces. The provincial governor, public health agencies, district chiefs, and heads of government departments in all departments including local government organizations have given priority to preventing the spread of disease. They go to the areas to give advice and public relations the way in which the measures have strictly determined to prevent the spread of the COVID-19 virus.

Local administrators refer to the president of the provincial administrative organization, the mayor, and the president of the sub district administrative organization. They are the primary leaders in the decentralized governance system, being responsible for setting policies for public administration in accordance with laws, rules, regulations, and ordinances by controlling and supervising the performance of personnel or teams responsible for various departments in accordance with the law for maximum efficiency, especially in the COVID-19 outbreak. In the outbreak situation, every agency in the community must participate in managing and solving problems to seriously prevent the spread of germs in the community and society. Not only do local administrative organizations, but also other government departments include agencies of the Ministry of Public Health which are the main agencies responsible for the work of all public health personnel. In addition, it must involve the Ministry of Education as it relates to teaching and learning. The Ministry of Interior is accountable for peace and welfare of the people and all community health network partners. Therefore, local administrators must set various policies in the community, announcement of policies, monitoring, evaluating, and improving various guidelines to control and prevent the spread of COVID-19 with maximum efficiency and speed through participation of all relevant sectors, relying on the management team to work successfully amidst the COVID-19 outbreak. Therefore, any type of participatory management process that local administrators use and are successful should be learned and extracted as a body of knowledge to create a guideline for enhancing performance of the local administrators and communities to be more efficient. From the problems

and significance mentioned above, the researchers as instructors in Rajabhat Rajanagarindra University which is the only university in Chachoengsao Province and has a campus located in Bang Khla District, Chachoengsao Province. The mission of the university is to be a university for local development. Realizing the benefits and importance of the above mentioned, the researchers are interested in studying the participatory management guidelines to prevent COVID-19 in the community of local administrators in Chachoengsao Province, to serve as a model for developing this knowledge to expand widely, which will be beneficial to prevent emerging epidemics at present and in the future, to reduce negative impacts on the people and continue to promote the good quality of life of the people.

Research Objectives

- 1) To study the context, participatory management, problems encountered and solutions regarding participatory management to prevent the spread of COVID-19 of local administrators, Chachoengsao Province.
- 2) To identify factors of participatory management which affect prevention of the spread of COVID-19 of local administrators, Chachoengsao Province.
- 3) To create the participatory management guidelines to prevent the spread of COVID-19 of local administrators, Chachoengsao Province.
- 4) To evaluate participatory management guidelines to prevent the spread of COVID-19 of local administrators, Chachoengsao Province, Thailand.

RESEARCH METHODOLOGY

Population and Sample

1. Qualitative Research

The studied population used in the research were local administrators of Chachoengsao Province, including 1 president of Provincial Administrative Organization, 29 Mayors, and 79 presidents of Sub district Administrative Organizations, totaling 109 people (Chachoengsao Province, 2020). The key informants were local administrators of Chachoengsao Province. Selection method of key informants was done by simple random sampling from those in each position, except the president of Provincial Administrative Organization, due to being only 1 person, until the calculated number was reached 23 informants.

2. Quantitative Research

The population used in the research were the people of Chachoengsao Province, adults aged 20-59 years, totaling 427,350 people (National Statistical Office, 2020). The sample were 400 adults in Chachoengsao Province, aged 20-59 years. The sample size was determined using the sample calculation formula according to Taro Yamane's formula (Yamane, 1973), using the stratified sampling method. It was calculated in proportion according to the list of districts, then using simple random sampling until the specified number was reached.

Tools for Data Collection

1. Qualitative Research

Tools used for data collection were a form of In-depth interviews and fieldwork record. The interviewed data were transcribed verbatim. The quality of the tool was checked for content validity by three experts. The interview form would also be used for testing among the presidents of the sub

district administrative organizations. Two people who were not in the sample group were used in try-out as a guideline for adjusting the questions for understanding before actual use.

2. Quantitative Research

The tool used to collect data was a set of questionnaires, created by the researchers, about participatory management in preventing the spread of COVID-19 among 400 people in Chachoengsao Province. The set of questionnaires was divided into 2 parts: Part 1: General information of respondents; Part 2: The set of questions regarding participatory management to prevent the spread of COVID-19 of the administrators of the local government organizations in Chachoengsao Province, consisting of 2 parts: Part 1: the primary variables of participatory management comprised of 4 areas: 1) planning, 2) operations, 3) returning benefits to the community, and 4) follow-up and evaluation. Part 2: the dependent variables of prevention of the spread of COVID-19, included 1) knowledge about COVID-19, 2) attitude towards COVID-19, and 3) practices to prevent the spread of COVID -19. The nature of the questionnaire was a rating scale. Quality inspection of the tool was done by presenting it to three experts to consider the content reliability, completeness, correctness and find the consistency of the questionnaire and calculated the index of consistency (IOC) with a value of 0.91 and determined the confidence value by finding Cronbach's alpha coefficient (Cronbach, 1990). The confidence value for the entire version was equal to 0.89, so it was used to collect real data.

Data Collection

1. Qualitative Research

Data were collected by means of in-depth interviews from 23 key informants until the data were saturated and data were collected by other methods as well, including non-participant observation and taking notes, checking the reliability of information. The researchers used a method of examining information on the same subject from multiple sources and recording reflections, after collecting data to record ideas and beliefs based on information and connections found in data collection to be used for complete and accurate data analysis.

2. Quantitative Research

Data collection using questionnaires.

DATA ANALYSIS

1. Qualitative Research

Researchers analyzed information about participatory management guidelines to prevent the spread of COVID-19 of the administrators of the local government organizations in Chachoengsao Province, with content analysis by coding data and using methods to interpret the meaning of the data. Then, they created concepts by comparing with theory and research results to help organize the data analysis system.

2. Quantitative Research

The responded questionnaires were given coded for each question and record the results on the computer, using a ready-made program and analyzing questionnaire data.

Statistics used for data analysis

Qualitative research used content analysis for data analysis. Quantitative research used statistics for research, including frequency, percentage, mean, standard deviation (S.D.), Pearson correlation coefficient, and multiple regression analysis.

RESEARCH RESULTS

1. Context: Participatory management, problems encountered, and solutions regarding participatory management to prevent the spread of COVID-19 in the community of local administrators in Chachoengsao Province

- 1) Participatory management to prevent the spread of COVID-19. The results of the study found that in preventing the spread of COVID-19, local administrators at all levels had analyzed the causes of community problems, meeting to plan, and solving problems. Proactive policies had been established to prevent the spread of COVID-19, by relying on the participation of all party's teamwork, clearly defining who was responsible for each job and their roles and responsibilities in order not to cause confusion or interfere with each other's work. This created flexibility in managing operations in each area so that there was intimate friendship and love among one another. Each department coordinated well in providing information, made work smooth, monitored and evaluated performance regularly. They evaluated the results of operations to see if they could be implemented. What problems occurred they would be prompt with solving problems and giving reminders; by solving problems and obstacles as soon as they were encountered with participatory consultation meetings with all involved parties. They publicized information to all parties and various movements to prevent the spread of COVID-19 disease that was continuously beneficial to society and the community in accordance with proactive policies.
- 2) Implementation of participatory management to prevent the spread of COVID-19. The results of the study found that in carrying out the work; there was a clear structure for those responsible to perform their duties along with participating in organizing projects or activities to prevent the spread of COVID-19 including participating in various community projects or activities that had been carried out according to the plans and participating in improving the work process. They pursued doing the work with determination, determination, patience and never giving up in the face of hardship. There was decentralization in overseeing, coordinating, and helping people in every aspect, and their work activities were adjusted all the time depending on events that occurred each day. Working activities had been carried out and a working group had been established for the COVID Prevention Operations Center. It was a large board consisting of the Subdistrict Administrative Organization president as the chairperson, with village chiefs and village headmen from all 6 villages invited to be committee members as disease control officers in the position of issuing orders. There were chairpersons of related organization groups, village health volunteers, and a committee of the COVID-19 Prevention Center. There were small committees as committees, another set of work consisting of the Permanent Secretary, Acting Director of Public Health, the office was mainly in the Permanent Secretary's Office. The head of the Permanent Secretary's office was the center secretary and had a sub-committee of 8-9 people as a working group. There were survival kits and information coordination, receiving cooperation from village health volunteers to watch over you 24 hours a day.
- 3) Components that support the development of participatory management to successfully prevent the spread of COVID-19. The results of the study found that the key element supporting the development of participatory management to prevent the spread of COVID-19 to be successful was that they had received support from every agency. Most importantly, people themselves must understand how to behave in each situation, having their sincere intention of all parties in working together to prevent the spread of COVID-19. Raising awareness of the advantages and disadvantages, they must help each other, join in unity, monitoring and evaluating the situation

of community participation, public relations, morale, and motivation for good quality work management.

- 4) Participation in the participatory management to prevent the spread of COVID-19 to provide sustainable health to the people. The results of the study found that local administrators in Chachoengsao Province had managed and controlled the spread of COVID-19. It must have coordination and cooperation with all sectors, work assignment according to roles and responsibilities and in accordance with legal requirements, including emphasizing the continuous development of the potential of personnel in all departments to keep up with the situation. By managing as many people or committees or networks as possible in the community, with the participation of all parties, from the provincial administration to all practitioners, they jointly planned operations, and organized the structure of operations tightly in every aspect and every department. There was also a meeting every week to follow up and evaluate performance and problems in order to find solutions in a timely manner including explaining the results of work to all parties, giving praise or rewards to provide morale, and encouraging all workers who must perform their duties with determination, patience, and diligence according to their roles and responsibilities.
- 5) Guidelines for solving problems and obstacles in participatory management to prevent the spread of COVID-19 according to the respondents' experiences. The results of the study were found that there were solutions to problems and obstacles in participatory management to prevent the spread of COVID-19. The details were as follows.

Problems encountered were as follows: lack of good communication; lack of cooperation from the people; there was a complaint; failure to notify when traveling into the area; problems in setting up screening checkpoints in various locations; setting up a field hospital; there were problems about not having enough beds to accept patients because more people were infected. Bathrooms, showers, hundreds of people shower every day; water tanks were not enough; water could not be drained in time, and quarantine of people suspected of being infected with COVID-19. As a solution to the problem, it was found that there should be training, review, and increasing knowledge for the sub-district headmen, every village headman, and village health volunteers to increase their work potential. There should be meetings among sub-district headmen and village headmen of every village because in each village the context was different. Resources should be mobilized to request cooperation and participation from the public sector, private sector, temples, schools, and the public. Performance should be monitored and evaluated periodically. When problems arose, they would be able to solve them in time. There also was a system to increase morale for all parties.

2. Factors of participatory management that affect prevention of the spread of COVID-19 of local administrators Chachoengsao Province

1. Result of analysis of factors of participatory management of local administrators in Chachoengsao Province overall, it was at a high level.
 - 1) Participation in planning overall was at a high level. The item with the highest average was that "Your local administrators have involved you in planning solutions to prevent COVID-19 disease." Secondly, "Your local administrators have involved you in assigning people responsible for projects or activities for COVID-19 prevention." And "Your local administrators have involved you in planning, monitoring, and evaluating projects or activities to prevent COVID-19." The item with the last average value was that "Your local administrators have involved you in analyzing the causes of the community's COVID-19 outbreak."

- 2) Participation in the implementation of the plan overall, it was at a high level. The item with the highest average was that “Your local administrators have a process for motivating you to participate in activities or projects to prevent COVID-19.” Second was that “Your local administrators have a process for communicating and publicizing the project or activity to the target group for understanding about COVID-19.” And “Your local government has a process in place to positively encourage you to attend training to understand COVID-19.” The item with the last average value was that “Your local administrators have improved projects or activities to prevent the spread of COVID-19 for maximum efficiency.”
 - 3) Participation in monitoring and evaluation was overall at a high level. The item with the highest average value was that “Your local administrators have set a date and time to monitor and evaluate the projects or activities to prevent the spread of COVID-19.” Secondly, “Your local administrators have established methods for monitoring and evaluating projects or activities to prevent the spread of COVID-19.” And “Your local administrators have comprehensively analyzed the results of projects or activities to prevent the spread of COVID-19.” The item with the last average value was that “Your local administrators have suggested ways to improve projects or activities to prevent the spread of COVID-19 according to the information found to achieve the goal.”
 - 4) Participation in returning benefits to the community, in overall it was at a high level. The item with the highest average was that “Your local administrators emphasize that personnel serve the people with the utmost commitment to the community's benefits.” Secondly, “Your local administrators emphasize that personnel serve the people by considering the safety and comfort of the community.” And “Your executives have summarized the results of activities or projects to prevent COVID-19 that is beneficial to the community.” The item with the last average value was that “Your local administrators hold a meeting to explain the benefits of the projects or activities to prevent the spread of COVID-19 to the community periodically.”
2. Result of analysis of the level of prevention of the spread of COVID-19 in the community of local administrators in Chachoengsao Province as a whole, it was at a high level. The item with the highest average value was: “You think people in your community are conscious about preventing the spread of COVID-19” Second was that “You are careful to act to prevent the spread of COVID-19, following local recommendations in all respects,” and “You realize that you play an important role in preventing the spread of COVID-19.” The item with the last average value was that “You have refrained from going out or socializing during the COVID-19 outbreak.”
 3. The results of the analysis of the relationship between participatory management factors and the prevention of the spread of COVID-19 in the community by local administrators in Chachoengsao Province were found that they had positive relationship, statistically significant at the .01 level.
 4. The results of the analysis of the participatory management factors in all 4 areas affecting the prevention of the spread of COVID-19 in the community of local administrators were participation in planning, participation in the implementation of the plan, participation in monitoring and evaluation, and participation in returning benefits to the community. These factors were able to jointly predict the prevention of the spread of COVID-19 in the community of local administrators in Chachoengsao Province, for 97.90% with statistical significance at the .01 level.

3. Create participatory management guidelines to prevent the spread of COVID-19 in the community of local administrators in Chachoengsao Province, Thailand.

It was found that the created participatory management guidelines to prevent the spread of COVID-19 in the community of local administrators in Chachoengsao Province, Thailand had 4 steps as follows: Step 1: Participation in planning consisted of analyzing problems, setting work guidelines, and planning meeting. Step 2: Participation in the implementation of the plan in which activities included following guidelines, work as a team, and work commitment. Step 3: Participation in monitoring and evaluation in which activities included checking work performance, following up regularly and giving mental support. Step 4: participation in returning benefits to the community in which activities included sharing knowledge, expanding network, and public relations which were important in successful management and efficiency in work.

4. Assess local administrators' participatory management guidelines to prevent the spread of COVID-19 in the community, Chachoengsao Province, Thailand.

It was found that five experts confirmed the local administrators' participatory management guidelines to prevent the spread of COVID-19 in the community, Chachoengsao Province, Thailand, completely and could be used effectively in real situations and disseminate information to other communities, other districts, other provinces, and the national level, as shown in Figure 1.

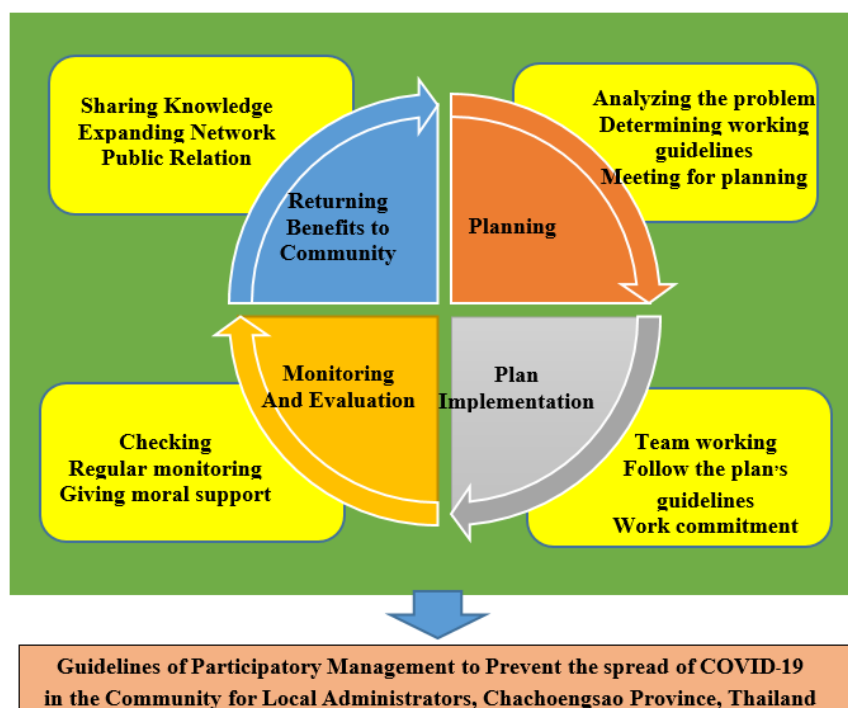


Figure 1: Guidelines of Participatory Management to prevent the spread of COVID-19 in the Community for Local Administrators, Chachoengsao Province, Thailand

From the figure 1 Guidelines of Participatory Management to Prevent the spread of COVID-19 in the Community for Local Administrators, Chachoengsao Province, Thailand had 4 steps follows: Step 1: Participation in planning consisted of analyzing problems, setting work guidelines, and planning meeting. Step 2: Participation in the implementation of the plan in which activities included following guidelines, work as a team, and work commitment. Step 3: Participation in monitoring and evaluation in which activities included checking work performance, following up regularly and giving mental support. Step 4: participation in returning benefits to the community in which activities

included sharing knowledge, expanding network, and public relations which were important in successful management and efficiency in work

DISCUSSION

1. Study of the current situation, problems, and solutions about the participatory management guidelines to prevent the spread of COVID-19 in the community of local administrators in Chachoengsao Province, Thailand.

The results of the interviews were revealed that local administrators at all levels had analyzed causes of the problems. They organized meetings to plan and solve the problems, determining guidelines for preventing the spread of COVID-19 by relying on the participation of all parties, clearly defining who was responsible for each job and their roles and responsibilities to prevent confusion or interfere with each other's work. This created flexibility in operating according to the guidelines laid out in each area to have intimate friendship and love among one another. Each department coordinated well in providing information, making work go smoothly with the team working, having commitment and determination to work with patience and sacrifice. Performance was regularly monitored and evaluated as well as creating motivation and encouragement in working. It had solving problems and obstacles as soon as they were encountered with participatory consultation meetings with all involved parties. Publicizing information and keeping informed various movements to prevent the spread of COVID-19 which was continuously beneficial to society and the community. Various problems encountered included a lack of good communication and coordination, lack of cooperation from the public, setting up screening checkpoints in various places, setting up a field hospital, and quarantine of people suspected of being infected with COVID-19. Those problems could be solved through that there should be training, reviewing, and increasing knowledge among headmen, village leaders, and village health volunteers to increase their work potential. There were meetings among sub-district headmen and village headmen of every village because each village had to participate in clear management planning, mobilizing resources and asking for cooperation to participate from the public sector, private sector, temples, schools, and the public. It also had the follow up and performance evaluation periodically. Whenever problems arose, they would be able to solve them in time. And there was morale building. This result was in line with the research of Wittaya Chinbutr (2021) who said that in preventing the outbreak of coronavirus disease 2019 according to government policy; there were problems and obstacles, namely lack of cooperation, not wearing a mask and delays in operations, difficulty in reaching the public, insufficient budget, and insufficient medical personnel. It also was consistent with Yaowalak, Ban Pho (2021) indicated that in carrying out work, problems and obstacles encountered were lack of cooperation, not wearing a mask, inadequate tools, and equipment, such as face masks, thermometer including alcohol gel. In social distancing, there was a lack of knowledge and understanding. People did not understand about COVID-19, lack of good communication, failure to quarantine oneself to monitor symptoms, lack of budget, and insufficient medical personnel.

2. Study of factors of participatory management which affected the prevention of the spread of COVID-19 among local administrators in Chachoengsao Province

1. Analysis of the factors of participatory management which affected the prevention of the spread of COVID-19 in the community of local administrators in Chachoengsao Province overall, it was at a high level. It was consistent with Tubtim Saeng-in (2016), who studied about participatory administration of Suangsuttha Wittaya School, Suphanburi Province. It was found that overall participatory management was at a high level. It also was consistent with Penphit Phapongyun (2017), who studied about participatory management of educational institution administrators

under the Bueng Kan Primary Educational Service Area Office, the overall level was at a high level.

- 1) Participation in planning overall, it was at a high level. This might be because the local administrators had involved the community in planning meetings to solve problems and assign people responsible for projects or training activities to provide knowledge about the risks and severity of COVID-19, plan monitoring and evaluation of projects or activities to prevent COVID-19. They also planned to return benefits to the community according to the community context. This was in line with Kanchana Panyathorn and colleagues (2021), who indicated that planning a workshop for community leaders to see the importance of the COVID-19 problem, recognized the problems of past operations, and proposed activities to prevent the disease by giving knowledge, strengthening risk awareness, surveying behavior and reviewing preventive measures for community leaders and representatives of household members through the village news tower, by providing up-to-date information on the outbreak situation and its impacts that occurred every day via the village news tower and knock on the door every house. It was consistent with Ranong Ketdao, Amporn Thiangtrongdee and Pasinee Toin (2021) stated that the participation of all relevant sectors in thinking together, planning, and jointly carrying out activities, participating in evaluating the results of surveillance, prevention, and control of COVID-19, participating in evaluating mitigation measures, joining in tackling the problem of high-risk groups refusing to quarantine themselves and supporting adequate and effective resources, preparing readiness, supporting budget and necessary equipment for staff working in the Subdistrict Health Promotion Hospital, such as N95, coverall, surgical masks, cloth masks, handheld thermometers, gloves, hand washing sinks, sprayers, chemicals for cleaning and disinfecting public areas.
- 2) Participation in the implementation of the plan, overall, it was at a high level. This might be because local administrators work according to the plan implementation process, stimulating and motivating the community to participate in activities or projects, coordinating, procuring materials and equipment, communication, public relations, positively encouraging communities to attend training to understand COVID-19. It was consistent with Worayut Nak-ai, Kamonnat Muangyim, Decha Wannaphahun (2020) who stated that in the operational process, two main activities were carried out: health communication and producing face masks for disease prevention, coordinating the organization of volunteer groups to work under conditions, safety and disease prevention, organizing materials and medical supplies for self-protection, dissemination of information and health news through online media with text, images, and short VDO clips which the leaders selected and considered from reliable sources to forward to club members via line group and used such channels for communication between group members as well.
- 3) Participation in monitoring and evaluation was overall at a high level. This might be because local administrators had set dates and times to monitor and evaluate projects or activities by involving all parties in the evaluation. The assessors included local leaders, sub-district headmen, village headmen, village health volunteers, and the appointed evaluation committee members. It had established methods for formally and informally monitoring and evaluating projects or activities and analyzing the results of projects or activities to prevent the spread of COVID-19 in a comprehensive manner. It was consistent with Cohen and Uphoff (Cohen & Uphoff, 1979) stating that participation in evaluation involved citizens participating in project evaluation both formally and informally. Participation format for formal evaluation, such as a meeting to review and evaluate past operations, joining a working group or evaluation committee or participation in a working group for evaluation research. For participation in informal

evaluations, such as informal small group meetings or meetings to discuss and exchange opinions regarding project operations.

- 4) In terms of participation in returning benefits to the community, its overall level was at a high level. This might be because local administrators emphasized that personnel must serve the people with the highest commitment to the community's interests, considering the safety and comfort of the community and summarizing the results of activities or projects to prevent COVID-19 which was beneficial to the community, making the community aware of the benefits of the project or activity to prevent the spread of COVID-19 to the community periodically and to receive maximum benefits from working on projects to prevent the spread of COVID-19 by the management team in the community. This was consistent with Narumon Waricha (2009) who stated that the method of public participation in community development was that the majority of citizens must participate in the development of their own community because the people would be the ones who received direct benefits. It was about creating love, unity for people in the community. As a result, life and living conditions were more convenient and comfortable. It was corresponded to Ananphon Imjongjairak (2019) who stated that creating a lot of participation of people in the community from the development management process that was consistent with the needs of the people in the community. Benefits arising from development directly affected people in the community of all genders and ages. The implementation of development projects must be clearly stated both objectives, development goals and the operation process which created motivation for people in the community to feel like they wanted to participate in development.
2. Result of the analysis of the level of prevention of the spread of COVID-19 in the community by local administrators in Chachoengsao Province was at a high level. It was consistent with Supaporn Wongthi (2021) who studied about factors affecting the prevention behavior of coronavirus 2019 among village health volunteers in Sukhothai Province as at a high level. This might be because local leaders had organized training to provide knowledge, understanding the community, being conscious of preventing the spread of COVID-19, paying close attention to all local instructions, realizing that communities played an important role in preventing the spread of COVID-19. Controls were in place to prevent COVID-19, strictly following preventive measures. It was in line with Sītipātiḥar Ela, Ikhwani Wani, and Afidah Dawloh (2021) whose study revealed that greater prevention and surveillance of the spread of the 2019 coronavirus required strict preventive measures, managing work in the organization by developing and improving working system and efficiency in work and organization. Training had been organized for agencies and increasing their work potential during COVID-19. The organization had agencies or officials go to and talk with village headmen in the community so that the village headman did publicize it to villagers in the community. The villagers could have protection and be vigilant in the spread of the coronavirus 2019. This was consistent with Kanchana Panyathorn and colleagues (2021), who said that community participation in preventing COVID-19 disease in every step of operations by participating in problem analysis, planning to solve the problem, carrying out disease prevention activities and participating in evaluation, although household representatives had little participation in the first phase of the operation due to daily workload. But, after the workload was completed, they had more participation.,
3. Results of the analysis of the relationship between participatory management factors and the prevention of the spread of COVID-19 in the community of local administrators in Chachoengsao Province, it was a positive relationship with statistical significance at the .01 level. It was consistent with Kittiphon Nausuwan, Phacha Singwiratham and Waporn Damsaengsawat (2020) who studied about the relationship between the perception of disease severity and the role of volunteers in controlling

coronavirus disease 2019 in the community of village public health services (VHVs) in Thailand. It was found that there was a positive relationship, statistically significant at the .01 level. It was consistent with Supaporn Wongthi (2021) who studied about factors affecting the prevention behavior of coronavirus disease 2019 among village health volunteers in Sukhothai Province and found that there was a positive relationship, statistically significant.

4. Results of the analysis of factors of participatory management revealed all 4 aspects affecting the prevention of the spread of COVID-19 in the community of local administrators in Chachoengsao Province. The affecting factors included participation in planning, participation in the implementation of the plan, participation in monitoring and evaluation, and participation in returning benefits to the community. It was able to jointly predict the prevention of the spread of COVID-19 in the community of local administrators in Chachoengsao Province for 97.90% with statistical significance at the .01 level. It was consistent with Winthanyu Bunthan *et al.* (2020) who studied about factors that influenced health promotion behavior in prevention Coronavirus 2019 infection among the elderly. It was found that the perceived benefits of the practice and perceived barriers to perceptual practice, own abilities, interpersonal influence, and situational influences could be jointly explained 61.20% of the variance in health promotion behaviors in preventing coronavirus 2019 infection among the elderly. It was consistent with Supaporn Wongthi (2021) who studied about factors affecting the prevention behavior of coronavirus disease 2019 among village health volunteers in Sukhothai Province. It was found that social support regarding coronavirus disease 2019, perception of the risk of contracting coronavirus disease 2019, perception of benefits of practices to prevent the occurrence of coronavirus disease 2019 together could predict the prevention behavior of coronavirus disease 2019 among village health volunteers in Sukhothai Province for 48.30 percent.

3. Create participatory management guidelines to prevent the spread of COVID-19 in the community of local administrators in Chachoengsao Province, Thailand

- Step 1:** Participation in planning. The participatory process contained activities: analyzing the problem, determining working guidelines, and meeting for planning.
- Step 2:** Participation in the implementation of the plan. The activities included following the guidelines, work as a team, and work commitment.
- Step 3:** Participation in monitoring and evaluation. The activities contained checking work performance, follow-up regularly, and giving mental support.
- Step 4:** Participation in returning benefits to the community. Activities contained sharing and exchange knowledge, expanding network, and public relations.

It was found that participatory management had 4 steps as follows: which were important in managing success and efficiency in work. This might be because in preventing the spread of COVID-19 in the community, the key players were the local government organizations, which were closest to the people in the community, had good interaction, got to know each other, and were able to talk with each other, and understood various preventive measures which the government specified, and could easily cooperate with all parties. Those factors made management more successful and efficient. This was consistent with Ranong Ketdao, Amporn Thiangtrongdee, and Pasinee Toin (2021) who said that participatory management of all relevant sectors jointly thought, planned, and carried out activities. They participated in evaluating the results of surveillance, prevention, and control of coronavirus disease 2019, participated in evaluating mitigation measures, joined in tackling the problem of at-risk

groups refusing to quarantine themselves, and supported resources adequately and efficiently. These operations showed the potential and efficiency of local administrative organizations with community participatory management in aiding people in the area to be healthy, have a good quality of life, and be self-sufficient and sustainable. It was consistent with Nawasanan Wongprasit and Wichit Saengsawang (2022) who stated that the roles of local government organizations to prevent coronavirus disease 2019 in important communities were the coordination and cooperation of all parts of the community that were involved. They included Sub district Health Promoting Hospitals, Village health volunteers, sub district headmen, village headmen, temples' leaders, schools' leaders, and all citizens. These helped people understand disease outbreaks, disease prevention, and set guidelines for practice, arranging people to work together, arranging a budget, procuring materials and equipment to wear for use in disease prevention, following up on citizens' practices, and creating understanding and cooperation among people who did not understand and not follow the rules set by the community or society. Strategies that made work successful included dedication and sacrifice in performing work with continuous and sincere intention, being a good example in practice according to government measures for the people, having access to the needs of the people, quick understanding of various policies and teamwork with various leaders in the community.

4. Assess local administrators' participatory management guidelines to prevent the spread of COVID-19 in the community in Chachoengsao Province, Thailand

It was found that all five experts confirmed the local administrators' participatory management guidelines to prevent the spread of COVID-19 in the community, Chachoengsao Province, Thailand completely. It could be used effectively in real situations and be disseminated to other communities, other districts, other provinces, and the national level. It was consistent with Ranong Ketdao, Amporn Thiangtrongdee and Phasinee Toin (2021) who studied about development of a model for surveillance, prevention, and control of coronavirus disease 2019, Sub district Health Promoting Hospital in Udon Thani Province - Udon Model COVID-19). It was found that the sample group was satisfied with the operating model for surveillance, prevention, and control of COVID-19 at the Sub district Health Promoting Hospital, Udon Thani Province, Udon Model COVID-19, and the implementation of the model was at the highest level in every aspect. It also was consistent with Phatthaphon Jungsomjetpaisarn and Santi Tuaymeerit (2021) who studied about development of an operational model for village health volunteers in controlling and preventing coronavirus disease 2019 in Nakhon Ratchasima Province. It was found that the evaluation of the operating model under the SCAN model could actually be useable, appropriate, and applicable in similar contexts.

SUGGESTIONS

Suggestions for implications

1. Participatory management to prevent the spread of COVID-19 of local administrators in Chachoengsao Province, Thailand, in terms of participation in returning benefits to the community, it was at a high level but ranked last. Therefore, there should be a meeting to explain the benefits of the project or activities to prevent the spread of COVID-19 to the community periodically and seriously to create awareness and practice everywhere. It would help reduce the spread of the disease in the fastest and most effective way. Cooperation from everyone, whether rich or poor or from any country, everyone must act the same because once there is an outbreak, it would be difficult to control.
2. Preventing the spread of COVID-19 of local administrators in Chachoengsao Province was at a high level. Therefore, local administrators at the provincial and the national level should emphasize on refraining from going out or socializing during the COVID-19 outbreak.

Considering safety and good health, they should organize the continuous training to enable people to receive useful information on prevention and control of COVID-19 strictly in the community. They should think of strategies to create awareness and emphasize the safety of their own health and society at the same time by distributing to other agencies, both government and private sectors, through various networks and all groups of people to truly realize in the value of helping each other.

3. It was a guideline for relevant agencies to adopt a participatory management approach to prevent the spread of COVID-19 of local administrators in Chachoengsao Province, Thailand, as a guideline for promoting participation of all parties, both the public and private sectors, such as creating knowledge and understanding, increasing the potential of personnel to work efficiently, and organizing activities that reach out to local communities, etc.
4. Disseminating the guidelines of participatory management to other agencies to apply the guidelines for other communities, other districts, other provinces, and the national level to prevent the spread of COVID-19 effectively and holistically because this single world can now reach each other very quickly and easily. This outbreak is a good example. Therefore, disease prevention measures between borders or countries should be more stringent.
5. Since outbreaks have been found through person-to-person contact, health technology or medical robots should be developed to quickly detect potential epidemics and prevent further spread among people.

Suggestions for future research

1. Monitoring and evaluation should be further studied for participatory management to prevent the spread of COVID-19.
2. There should be research about the competency model of local leaders affecting prevention of COVID-19 spread.
3. There should be a study of the development of health technology or medical robots to be used to quickly detect epidemics that may occur and prevent further outbreaks in people.

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