

# A Qualitative Study of the Self-Directed Learning and Collective Power of Thai Village Health Volunteers in COVID-19 Prevention

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## Research Article

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# Abstract

## Background

During the COVID-19 pandemic, the restrictions brought about by new normal protocols have obstructed Thai village health volunteers (VHVs) from carrying out regular duties and training. However, they seem to have found ways to learn and fulfil tasks in connection with COVID-19 prevention. The research examines their learning methods and the employment of collective power, a cultural asset found in Thai communities, to overcome working challenges.

## Method

Qualitative data was collected from 30 VHVs working in ten communities from ten provinces across Thailand during the third wave of the pandemic. Semi-structured interviews and small focus groups were employed as data collection techniques. The themes and patterns under two main concepts – self-directed learning and collective power - were identified and analyzed.

## Results

The VHVs' self and selves-directed learning approaches were discovered. Not only did they gain COVID-19 related information from mass media and online platforms, but they also took initiatives to learn unfamiliar technologies which became important working tools in the context of the situation. While such learning methods highlight their autonomous learning attributes involving individuality or “self” learning concepts, the way they incorporated a collaborative learning method, reflects “selves” learning practices. The VHVs also utilized collective power - both in-group and inter-group power – through different networking systems. The main factors underpinning the collective power were kinship and kinship-like relationships among the VHVs and their community fellows. Their strong determination in working to help others - “doing good deeds” – helped to drive their self-learning and called for collective actions.

## Conclusion

Even though the abruptness of the outbreak coupled with the lack of knowledge about COVID-19 left the VHVs unprepared for the task, the VHVs were able to adapt themselves and employ both autonomous and group learning methods. Unique Thai cultural characteristics (i.e., collective power, networking, and kinship systems) have become social capital that helps them to overcome working and learning difficulties. This study thus illustrates the possible intertwining of collectivistic and individualistic values found in the process of self and selves-directed learning practices, and the implication of collective power as a cultural force in the field of community health promotion.

## Background

Thailand's village health volunteers (VHVs) have been an essential part of Thailand's primary health care for four decades. It began in 1977 as a pilot project in 20 provinces and became a full-fledged program

promoting community participation and empowerment in 1979 [1]. At present, there are more than one million VHVs working alongside public health officers all over the country [2]. Throughout this period, these volunteers have helped to prevent Thai people from suffering with familiar diseases which occur locally in seasonal cycles like Dengue, Rabies, and Malaria as well as non-transmitted diseases such as Non-communicable diseases (NCDs). They also have hands-on experience in monitoring and giving advice about other hazardous and contagious diseases such as Severe acute respiratory syndrome (SARS) and Bird Flu. Thai VHVs' responsibilities include conducting health surveys, collecting primary health data, keeping household health records, and undertaking disease prevention campaigns [3]. The volunteers' ability to successfully perform such tasks was practically facilitated by a cohesive network of workforces, built upon trusted relationships and knowledge about their communities [4].

Such strength has become social capital that has clearly contributed to the VHVs' outstanding work during the Covid-19 pandemic in Thailand since its first detection in January 2020. During the spread of the deadly virus and the country's lockdown between April and June 2020, World Health Organization (WHO) representatives visited community hospitals to witness the work of volunteers and considered them to be unsung heroes who helped flatten the curve and protect Thai communities from COVID-19 [5]. Locally, VHVs' spectacular role in collaborating with District Health Boards, as well as both local health and non-health players, to achieve the goal of COVID-19 prevention and control was widely praised throughout the country. In the first year of the outbreak, the Ministry of Public Health encouraged the wider use of online applications among health practitioners, including VHVs. However, there were several limitations hindering the work of VHVs during this pandemic including low resource allocation and the lack of systematic communication for fending off COVID-19 [6]. Due to the government's strict hygienic measures and guidelines, not only did the community members have to live under the "new normal" norm, but the volunteers themselves had to comply with the measures after the announcement of the Emergency Decree to contain the virus spread in March 2020. This constrained them from performing their regular duties and participating in normal or face-to-face training programs and consultations [4].

Toward the end of 2020, Thailand faced the second wave of COVID-19 followed by the third wave in April 2021 which has caused more infected cases and deaths. The VHVs have diligently and effectively performed their roles through both their regular services of detection, screening, treatment, and follow-up on COVID-19 cases, and via active services, including health promotion activities at community level, regardless of their limited training and resources. Such performance has been facilitated by several factors relating to Thai collectivistic culture such as group strength and strong networking [4, 6]. Working under COVID-19 circumstances, however, raised the question of how VHVs could equip themselves with needed knowledge and skills. This could not have been easy considering their unfamiliarity with the self-directed learning (SDL) approach, which is primarily based on individualistic attributes [7]. Another important yet under-researched question is how the cultural asset of group power and collaboration has been used to mobilize the work of VHVs in this crisis. This article therefore aims to examine the aspects of self-directed learning and collective power employed by VHVs to conduct COVID-19 prevention activities. The results can contribute to the field of community health promotion, particularly in terms of

how to promote self-directed learning to enhance Thai VHVs' working capabilities, and how to maximize the use of collective power as a mechanism for disease control during a pandemic.

## Methods

### Setting

This study employs a qualitative research approach using in-depth interview and small focus group methods. Thailand's National Statistical Office [8] divides Thailand into four regions which are the Northern, North-eastern, Southern, and Central regions. From these four regions, two provinces were drawn from each to be regional representatives. The eight regional provinces are Chiangmai and Payao from Northern Thailand (Participants 1–5); Nakhon Ratchasima and Sakon Nakhon from North-eastern Thailand (Participants 6–11); Nakhon Sri Thammarat and Surat Thani from Southern Thailand (Participants 12–16); and Petchburi and Suphanburi from Central Thailand (Participants 17–24). Moreover, two provincial towns in Bangkok, Thailand's capital, were purposely included as they could portray highly populated metropolitan areas. The two provinces are Samut Prakarn and Nonthaburi (Participants 25–30). Therefore, there are ten communities from ten provinces in total. All of them differ in terms of population, economic importance, and infection rates. This purposive selection would allow the results to be applied in other communities in which the village health volunteering system is the key mechanism for primary healthcare. The representative communities of each province were selected based on health experts' referrals and the VHVs' willingness to take part in the project.

### Participants

The participants are Thai VHVs who have been working in targeted areas. In total, we conducted mini focus groups and interviews with a total of 30 VHVs, consisting of 8 males and 22 females. The highest number of years in service is thirty-five years and the least is five years. In terms of age, only one participant is aged below 40 years, 15 participants are between 41 and 60 years, and 14 participants are above 60 years. They have different occupations., which include retired government officers, health-related personnel, teachers, small business owners, employees, fishermen, farmers, and housewives. Their education backgrounds vary from limited education (i.e., lower than a secondary school level) to bachelor's degree. One-third work as the head of a particular health promotion community as designated by the Ministry of Health. Prior to the COVID-19 outbreak, most participants were not familiar with using new communication platforms and online media.

### Data Collection Procedure

To explore how VHVs enhanced their self-learning capability and collective power under the new normal restrictions, we set the scope of content areas to frame semi-structured interview and focus group guideline questions. Open-ended questions and extensive probing techniques were used. The main

content areas included how the volunteers adopt self-directed learning and use collective power to accomplish their expected tasks. Throughout the interviewing process, the concept of trustworthiness suggested by Lincoln and Guba [9] was utilized along with the concepts of credibility, dependability, confirmability and transferability, and the validation strategies introduced by Creswell [10]. The research obtained IRB approval through Mahidol University (IPSR-IRB-COA. No. 2021/02-031).

Prior to conducting the first interview and small focus group sessions, the data collection team (three researchers who are faculty members of renowned Thai universities, and three research assistants who are master's degree students) discussed the interview questions and protocol to ensure that all team members had sufficient knowledge and skills to perform the interviews. The emphasis was on prebriefing participants regarding the research objectives, protocol and expected outcomes, the importance of participants' participation in the investigation, and the confidentiality of the interview data and participants' identities as well as responding to their questions or concerns [11].

The actual interviews and focus group discussions were carried out between March and April 2021 (the beginning of Thailand's third wave of COVID-19 outbreaks). Every session began with the prebriefing and broad questions about VHV work during the pandemic to establish communication. The interview focus was then narrowed down to the issues of self-directed learning and collective power being used for COVID-19 related tasks, and the following questions were asked:

- What is your VHV role during the COVID-19 pandemic, and how has it changed since the initial outbreak?
- How do you manage to obtain information and improve your skills (e.g., online reporting and communication systems) essential for performing your COVID-19 prevention activities?
- How have group power and community networking played a part in your VHV work during this crisis?
- How would you describe the social relations and cultural character of your community?
- What is your motivation for undertaking unfamiliar learning practices and doing the volunteer service considering that your personal health is at risk?

Interviews took place in either the participants' homes or community centers, with a duration of 40-60 minutes. Audio recording, note taking and observation were used for every interview. In between each interview, the research team held debriefings, particularly regarding issues relating to the collected data, serendipitous findings, and modifications to the data collection plan and techniques [12]. This practice helped the researchers to probe deeper into the investigation and simultaneously verify the interviewed data. It also provided them opportunities to reflect upon the way the interviews were conducted so as to prevent prejudice. Written notes and observation data on non-verbal cues were used and compared with the verbatim transcripts to ensure the accuracy of the information.

Second interview sessions for follow-ups on the current spread of COVID-19 as well as verification of the participants' prevention and control activities were conducted with eight participants from May to June 2021 via telephone and the Line (chat) application before the project was completed. These sessions

were used to reconfirm the previous findings as well as to demonstrate continuous engagement with the participants.

## **Data Analysis**

After initial review of the transcripts and written notes of interviews and focus groups, the themes and patterns under two broad themes that emerged from the data – self-directed learning and collective power - were identified and gradually grounded. The themes and patterns were used to shape the direction of the ongoing data collection. When all the data collecting processes were completed, the team analyzed the themes and sub-themes using the inter-coding technique and the theoretical concepts of self-directed learning and collectivism to increase coding accuracy and reliability. The discussion was grounded in relation to the entire data and research questions, and the analysis was conducted in light of the unique circumstances of Thailand's COVID-19 response.

## **Results**

### **Theme I: Vhv's Self-directed Learning Abilities**

In Thailand, a VHV works under the Ministry of Public Health through which the public health system is settled and centralized. The line of command is directed through a top-down communication system from the Ministry of Public Health to Tambon (sub-district) Health Promoting Hospitals where the Provincial Health Office is the operational node in each province. This administrative line is constructed to oversee all health promotion actions from central to provincial level. The VHVs bridge the gap from the sub-district level to villages and communities [1]. When the COVID-19 outbreak started, VHVs took a crucial role as a prime resource in supervising individuals' mobility, tracing roster records, carrying out household visits for temperature measurement, identifying people who needed home quarantine, and communicating necessary health messages pertaining to COVID-19 to every single household in their supervision area. They also stretched their role to help health professionals and to make sure that their community members adhered to the state measures and protocols of COVID-19 prevention.

Focusing on the self-directed learning process, the findings reflect different scenarios that show how the VHVs took initiatives and made attempts to improve their own learning. Prior to the outbreak, VHVs developed their knowledge and expertise to perform their duties through formal training and a vertical line of command. This formal training included activities such as meetings, workshops, and on-the-job training and was set by health authorities. However, face to face activities and prior scheduled training were completely disrupted when the number of infected cases rose in Thailand. Instead, self-directed learning through media platforms and online applications became central to enhancing their knowledge and skills necessary for working under the pandemic situation.

### **Acquiring Needed Information Across Media Platforms**

Most VHV's revealed that they were actively exposed to different mass media channels for finding more up-to-date information relating to the national and global pandemic situation. Due to the insufficient and delayed provision of information from official sources, mass media became the most accessible information outlet for the VHV's. Some of them endorsed the significance of using mass media to broaden their knowledge of COVID-19 for more efficient interaction with their community members.

*"I also watch TV news, which reports extensively about COVID-19 news all day. It's a must for us (VHV's) to update ourselves about what is really going on so we could relate to the real situation and know what and how to respond to our villagers."* (Participant 3)

*"I gain a wider view on the national situation by watching the news every day. News from the television is quite responsive. The up-to-date information keeps me in the loop and guides proactive work"*.  
(Participant 29)

For those who were familiar with online platforms before the COVID-19 outbreak, the use of online searching was mentioned as being important. Some of them reflected on the use of their autonomous learning abilities to screen out less reliable or suspicious information. Others who were unable to decide whether certain pieces of information were accurate, took a collaborative learning method. They shared, discussed, and evaluated the information together.

*"When the information given (by officials) is not enough or if I want to catch up with the situation, I will surf the internet. Google search is one of the ways, but you need to be very careful with what you find."*  
(Participant 7)

*"We can't rely only on the official source. Situations change quickly. I usually use Google and social media such as Facebook. Most of the time when I get new information or news, I will check first whether it's true or not."* (Participant 2)

*"There has been a massive amount of fake news on the internet since the beginning of the pandemic. Also, there was fake news about COVID-19 vaccines which made people fearful of getting jabs. Regularly, I discuss the news with my peers, and we are very cautious on selecting information only from reliable sources for communication with others."* (Participant 6)

These statements show not only the extent to which participants are an active audience of the media, but also the way they consume media information with critical views. Such a skill is particularly crucial in alleviating chaos during an infodemic of disinformation and misinformation. Importantly, it reflects their coming out of their comfort learning zones and the incorporation of group-learning. The VHV's have thus become active learners, instead of relying solely on what has been packaged and provided by the state.

## **Making Proactive Efforts To Learn Online Applications**

More reflections on the VHVs' attempts to learn can be seen through their utilization of unfamiliar technologies. The two new media platforms referred to by the participants in this new normal environment were the Line application and the Smart Or Sor Mor (or smart VHV) application. Line is an instant messaging application which can be used via smart phones, tablets, and personal computers. It allows for the exchange of texts, images, and audio and video, and for free calls. Thai VHVs have been encouraged to use Smart Or Sor Mor's official Line account and the Smart Or Sor Mor Application for formal uses in sending and receiving formal documents and information from provincial health promotion units and the Ministry of Health since 2018 [13]. In the pre-COVID-19 period, the participants admitted that they all knew about the availability of the official Line account and application, but they preferred meeting or talking in person and rarely deployed these tools. However, once the outbreak started, the use of the official Line account and application was unavoidable. Most participants recalled their frustration using these unfamiliar applications at the beginning.

*"The application is new to me. It took me a while to learn to operate it. After I got used to its interface, my work became easier. I don't need to visit the hospitals to get the information I need anymore".* (Participant 9)

*"Before the outbreak, I was not good at using Line or Smart Or Sor Mor Application. I just started using them after the outbreak began. At first, it was a bit confusing. I asked for help from my peers and grandchildren. I may be old, but I'm ready to learn. Now I'm getting better".* (Participant 22)

In addition to the use of the official Line account and application, the VHVs created their own Line chat groups to organize their informal surveillance network in communities, exchange information, communicate with individuals, and monitor the community members' health daily. This method replaced the traditional approach of door-to-door arrangements and meetings in person.

*"We opened a Line group chat to pull together staff from different levels to exchange messages and keep up with what's going on. For the households, we also called and texted them to monitor their health conditions and give advice so as to avoid the traditional means of house visits."* (Participant 23)

*"I use Line to coordinate with other networks such as local authorities, public health officials, community enterprises, vendors, and local interest groups. We tried to chat and meet in the distance instead of meeting in person."* (Participant 11)

*"During this new wave, more villagers are getting infected. We use a chat application to monitor their conditions; however, sometimes we must go visit the quarantine areas or screening tents in person. For VHVs' daily work report, we send it via the application. Document reports are required only on a half-month basis".* (Participant 30)

The need for the VHVs to make use of self-directed learning became even more vital when the pandemic situation worsened. They had to be able to make the full use of existing application features such as

location pinning to locate field hospitals and quarantine and screening stations, and video meeting applications for new normal regular meetings.

*“Since the spread of COVID19, I have learned to use many new applications and features to make our work possible. For example, I recently learned how to use the location pinning feature because we need to send the location of field hospitals to those involved.”* (Participant 10)

*“Most of the VHV’s are seniors. We are not keen on technology, but we need to learn. Now I know how to use several more applications. Lately, I learned to use Zoom to conduct VHV regular meetings, so we no longer need to meet in person.”* (Participant 17)

Despite their struggles, most participants expressed their willingness to learn and embrace these new communication technologies. When facing technical difficulties, they did not hesitate to ask for help from their peers and young family members. Being able to use these technologies enhances the VHV’s self-directed learning capability as well as their knowledge and skills in the fields of health promotion and disease control.

*“Knowing how to use new technologies has helped me a lot. I can learn COVID-19 related-knowledge, give and receive advice, report cases, and coordinate with others via Line and other applications much more easily”.* (Participant 8)

*“We set up a Line group to monitor the situation with community staff such as provincial officers, VHV’s from nearby villages, and health practitioners from provincial health hospitals. Our communication is very rich and active. We receive information simultaneously from the center. We use the application not only for COVID-19 prevention purposes, but also for referring chronic patients to hospitals.”* (Participant 19)

*“We (VHV’s at Mooban/village level) connect and have conversations every day. We also connect with VHV’s of other villages (at Tambon/sub-district Level). When other villages experience new or complicated cases, they will share their cases in Line groups and we can all learn from each other.”* (Participant 25)

Notably, the research findings also suggested that what lies beneath the VHV’s self-directed learning practices was their intrinsic value of “doing good deeds” and their desire to help others. Most participants similarly echoed that the volunteering service brought them pride, joy, and happiness because they could contribute to their community’s safety and well-being.

*“Being VHV’s especially during this pandemic is very difficult but I don’t mind. I believe we were born to help others. Doing good deeds makes us worthy of being human.”* (Participant 18)

*“Since the cases began to rise sharply, we’re working harder, and I feel so burnt out. But when I brought survival kits and medicines to the villagers and heard them say something like – thank you, or please come again - I felt so good. It brings me joy and pride to help others and work for our society.”* (Participant 26)

## Theme II: The Influence of Collective power on VHVs' Working Process

Unlike other previous health promotion activities that mostly aimed at empowerment through health knowledge provision, the COVID-19 prevention activity entailed a degree of imposition on community members to strictly follow the state control measures. However, the fact their volunteer positions did not give them authoritative power made this facet of the work a challenge. This study revealed that the VHVs employed collective power - a cultural factor that influences health promotion practices in the Thai community - to strengthen group collaboration and to mobilize collective action in order to tackle this challenge. The power was found in two aspects: in-group and inter-group power.

### Articulating Significance Of In-group Power

Most participants articulated that collective power enhanced their capacity to perform this challenging activity and provided them with moral support. Particularly, the VHVs' efficiency in enforcing the COVID-19 prevention measures among villagers was claimed as a result of their collective action at a group level.

*"We worked together even more closely to support each other. We had to boost each other's strength to overcome physical and mental fatigue caused by the demands of this task. It was so intense and stressful."* (Participant 25)

Importantly, all participants similarly echoed that the in-group power helped them to get through the feelings of discouragement and despair caused by resistance and hostile reactions from some of their community members. The group strength also helped a few VHVs get through the stress due to their families' disapproval of doing this health service at the cost of their personal health risk.

*"During the first wave, some villagers didn't understand our work. We faced some resistance. However, after a while the situation escalated and through our endeavors to communicate, we received better cooperation".* (Participant 14)

*"We faced complaints from some villagers at the beginning of the pandemic. They said we were so annoying and too nagging with the measures. I was a bit discouraged. But my peers said - we just need to keep explaining. Once they understand the situation, they will appreciate what we do".* (Participant 24)

*"My family was displeased and worried about my health; they did not want me to do the service at all. The thing that kept me going was the support from my peers".* (Participant 10)

This in-group power was underpinned by kinship and kinship-like relationships among the VHVs. Some of them were relatives. Most were born and have been living in their communities for generations. Not only were they close personally, but their families also knew each other very well. As a result, having compassion for each other and a willingness to support one another came naturally.

*"We are all related in a way. Some are my relatives and family friends. My parents also used to be VHVs, so I knew the nature of the work and some senior VHVs before taking the job". (Participant 16)*

*"All of us are more like siblings. We know each other very well so everybody was willing to stick together to keep COVID-19 out of our communities". (Participant 20)*

*"Our team has worked together for more than 10 years. We know each other very well. We know the strengths and weaknesses of each other. Therefore, we are willing to fill in for what is lacking for our peers and to give support when needed". (Participant 5)*

## **Strengthening Community Networks Through Inter-group Power**

Similar scenarios of close-knit relationships among community members also contributed to the collective action at a community level. Many participants explained that the community members also took part in monitoring the movement of people inside and outside their communities and informed VHVs. This active participation stemmed from their strong sense of ownership which made them willing to be the "eyes and ears" of their VHVs.

*"People in our community were very cooperative. They became our eyes and ears, keeping us informed about the flow of people going in and out of our community." (Participant 22)*

*"Most villagers were locals, born here and living here. We (VHVs and villagers) are acquainted. We (VHVs) usually know what is going on, like who has been born and who has died. Working in a community would not be any problem to us. Especially during this pandemic, we received quite good cooperation". (Participant 27)*

Cohesive collaboration between VHVs, local people, and authorities in managing disease control checkpoints was also found in all communities. Even though each party took a different role - the police and village headman set up the check point system, VHVs and local health officials took turns to help the police, and community members provided food and refreshments - they all worked toward the same goal. Particularly during the third wave, the inter-group collaboration extended to the referral system of those being identified as risk groups or infected.

*"We worked together and synthesized our efforts as a unit to prevent the spread of COVID-19 in our communities. We did whatever we could at the screening tents." (Participant 13)*

*"We worked closely with sub-districts, local hospitals, and temples (designated as community isolation units) to deal with the spreading situation in our area. We provided meals for those in home quarantine and coordinated with doctors to follow-up on their condition on a daily basis." (Participant 30)*

Another aspect of collective action was evident in the establishment of help centers established by and for people in several communities. The help centers were mostly located in “Wat” (Buddhist temples), sacred places that function beyond religious rituals to unite people from various organizations to provide primary assistance. The centers signify the utilization of community strength and the value of group commitments which are particularly high when everyone’s risk is shared.

*“Our community set up a help center at a temple. The center acted as a go-between among members aiming to help those in need.”* (Participant 15)

*“We also collaborated with Buddhist meditation centers and temples in order to give the villagers assistance and distribute necessary commodities for COVID-19 prevention and control”.* (Participant 1)

In addition to the collaboration among both health-related and non-health-related subgroups in the community, networking with other communities and social units - a common practice in local communities - was clearly reinforced during the pandemic. The VHVs’ extensive interactions with different levels of networks became a source of power that facilitated and supported their COVID-19 prevention and control activities.

*“One reason for our success in managing the situation in this community is because we networked with other groups in other villages. They helped us to distribute preventive measures to their networks and individuals in their area.”* (Participant 21)

*“Before COVID, we coordinated with schools, community co-ops, housewives’ clubs, senior citizen groups, and local authorities as part of our work, so it was easy to unite our actions and help each other even more during COVID.”* (Participant 12)

## Discussion

The VHVs’ employment of self-directed learning in this study indicates a degree of autonomy, whereby they took initiatives to fill their knowledge gaps and improve their technological ability to the level needed for performing COVID-19 prevention tasks. The degree of their autonomy, however, varies [14] depending on individual learning abilities, in particular, the ability to filter suspicious information and the ability to use technologies as learning tools. This, in a sense, reflects that even within the collectivism-dominant Thai society [15], learner autonomy, which is one of the distinctive characteristics of individualism and the grounded principle of self-directed learning [16], is called upon in times of crisis and for the purpose of maintaining community safety.

Another salient aspect emerging from the VHVs’ self-directed learning is the use of the group-learning method. They shared, discussed, and interpreted COVID-19 related-information in order to make decisions on crucial work procedures. This learning method is in line with what O’Donnell terms “selves-directed learning” [[17] p. 251], in which interdependent and collaborative aspects are seen as part of individual learning. Moreover, the VHVs’ adoption of such a method reflects a certain degree of collective practice.

While the VHVs' learning autonomy was rather unexpected considering that being autonomous is rarely a characteristic of Thai people, their incorporation of collective learning techniques reflects the positive effect of Thai collectivistic culture in the self-directed learning practice. Our study thus suggests that collectivism and individualism should not be perceived as a binary opposition under the self-directed learning framework, where individualistic values (i.e., autonomy and independence) are seen as a facilitator, and collectivistic features (i.e., conformity and interdependence) as an impediment [7]. Rather, both individualism and collectivism can complement each other to enhance self-directed learning outcomes.

The study found a strong sense of collectivism overarching the VHVs' working approach during the COVID-19 crisis in multi-layer networks which were frequently used to mobilize preventive protocols as well as provide assistance. These networking systems are embedded in the social fabric of Thai communities which mirror the notion of collective power. Interestingly, the VHVs' application of collective power is two-fold, consisting of in-group power and inter-group power. Both dimensions led to group efforts and actions that enabled all VHV participants to enforce the state prevention measures for COVID-19. The in-group power among the VHVs functioned beyond practical responsibilities to include the psychological health of the VHVs, (i.e., moral support, encouragement). The inter-group power included the collective efforts of community members to be the "eyes and ears" of the community surveillance system, and the collaboration between VHV groups and health and non-health units at the local level as part of a preventive and supportive system. This reconfirms the essential role of the Thai VHV in mobilizing and collaborating with different networks in halting COVID-19 transmission in communities across the country [6]. Importantly, this study discovered that the VHVs' collectivistic values make these networking operations viable.

The main factors that underpinned the collective power were kinship and kinship-like relationships among the VHVs and their community fellows, and feelings of ownership toward their communities. These are social capital which is invested and exchanged by group members and which appears to be a mechanism for enforcing epidemic prevention measures. As Bourdier states, "the network of relationships is the product of investment strategies, individual or collective, consciously or unconsciously aimed at establishing or reproducing social relationships... transforming contingent relations, such as those of neighbourhood, the workplace, or even kinship..."[[18] p. 248]. Put simply, social capital is an intangible asset that underlines the benefit of collectivism in the pandemic situation.

A closer look at the drive for self-directed learning and collective power utilization indicates that it stems from the VHVs' strong determination in working to help others - or what they often refer to as "doing good deeds". Such determination emerged from a shared belief in karma among the VHVs that was shaped by Buddhism, a religion practiced by more than 94% of the Thai population [19]. The law of karma denotes the principle of cause and effect generated by an individual's action [20]. Therefore, performing health volunteering services is perceived as a way of practicing good karma which would lead to happiness and positive consequences in life in general.

## Conclusion

This qualitative study analyzed the way in which self-directed learning and collective power was employed by the VHVs as a mechanism to work against the spread of COVID-19 in ten communities across the four regions of Thailand and two provincial towns in Bangkok. The findings reveal that the abruptness of the outbreak coupled with inadequate training left them unprepared for this novel task. However, their determination to perform their volunteer role as efficiently as they could, and to be able to contribute to their communities urged them to employ both autonomous and group learning methods, that is, self and selves-directed learning approaches, to tackle the challenges they faced. The juxtaposition of individualistic and collectivistic values, therefore, played an important part in the VHVs' learning practice. As Thailand is described as a collectivistic society, the use of collective power and networking enabled the VHVs to successfully enforce the COVID-19 prevention and control measures. This cultural asset needs to be further explored in the area of community health promotion in Thailand and in countries with similar health volunteering systems. Comparative studies of self-directed learning in healthcare systems in individualism and collectivism-dominant societies are also worth exploring. Particular attention should be paid to health promotion practitioners' skills with new communication technologies, which is part of an emerging trend of using mHealth technologies worldwide.

## Abbreviations

VHV: Village health volunteers; COVID-19: Coronavirus disease-2019; NCDs: Non-communicable diseases; SARS: Severe acute respiratory syndrome; IRB: Institutional Review Board; WHO: World Health Organization; SDL: Self-directed learning

## Declarations

### *Ethics approval and consent to participate*

The research proposal, protocols and tools obtained ethics approval from the Institutional Review Board, Institute for Population and Social Research, Mahidol University with IPSR-IRB-COA. No. 2021/02-031. Before starting the interviews, all participants were provided with all relevant and essential information. Voluntary verbal informed consent was obtained from all participants before starting the interviews.

### *Consent for publication*

Not applicable.

### *Availability of data and materials*

The datasets used in the study are available from the corresponding author upon reasonable request.

### *Competing interests*

The authors declare that they have no competing interests.

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### ***Authors' contributions***

ND and NS designed the study, developed the research tools, collected data, analyzed data, interpreted the results, and drafted and approved the manuscript. NT designed the study, developed the research tools, monitored data collection, analyzed data, interpreted the results, and drafted and approved the manuscript. All authors read and approved the final manuscript.

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## **References**

1. World Health Organization. Regional Office for South-East Asia. Role of village health volunteers in avian influenza surveillance in Thailand. 2007. <https://apps.who.int/iris/handle/10665/205876>. Accessed 19 May 2021.
2. Patcharanarumol W, Issac A, Asgari-Jirhandeh N, Tuangratananon T, Rajatanavin N, Tangcharoensathien V, et al. COVID-19 health system response monitor: Thailand. New Delhi: World Health Organization Regional Office for South-East Asia; 2020.
3. Department of Health Service Support. Manual of village health volunteer (in Thai). 2019. [https://www.esanphc.net/files/621118\\_vhv\\_mor63/vhv63\\_ebook.pdf](https://www.esanphc.net/files/621118_vhv_mor63/vhv63_ebook.pdf). Accessed 21 May 2021.
4. Kowitt SD, Emmerling D, Fisher EB, Tanasugarn C. Community health workers as agents of health promotion: analyzing Thailand's village health volunteer program. *Journal of Community Health*. 2015; 40 (780–788). <https://doi.org/10.1007/s10900-015-9999-y>.
5. World Health Organization. Thailand's 1 million village health volunteers – “unsung heroes”– are helping guard communities nationwide from COVID-19. 2020. <https://www.who.int/thailand/news/feature-stories/detail/thailands-1-million-village-health-volunteers-unsung-heroes-are-helping-guard-communities-nationwide-from-covid-19>. Accessed 20 May 2021.
6. Tejavaddhana P, Suriyawongpaisal W, Kasemsup V, Suksaroj T. The roles of village health volunteers: COVID-19 prevention and control in Thailand. *Asia-Pacific Journal of Health Management*. 2020; 15 (3): 18-22.
7. Braman OR. The cultural dimension of individualism and collectivism as a factor in adult self-directed learning readiness. 1998. [https://aquila.usm.edu/theses\\_dissertations/1806](https://aquila.usm.edu/theses_dissertations/1806). Accessed 20

June 2021.

8. National Statistical Office. Demography population and housing branch. 2021. <https://statbbi.nso.go.th/staticreport/page/sector/th/01.aspx>. Accessed 21 May 2021.
9. Lincoln YS, Guba EG. *Naturalistic inquiry*. Beverly Hills: Sage; 1985.
10. Creswell JW. *Qualitative inquiry and research design: choosing among five approaches* (2nd ed.). Thousand Oaks: Sage; 2007.
11. Collins KMT, Onwuegbuzie AJ, Sutton IL. A model incorporating the rationale and purpose for conducting mixed-methods research in special education and beyond. *Learning Disabilities: A Contemporary Journal*. 2006; 4 (1): 67-100.
12. Leech NL, Onwuegbuzie AJ. Qualitative data analysis: a compendium of techniques and a framework for selection for school psychology research and beyond. *School Psychology Quarterly*. 2008; 23(4): 587–604. <https://doi.org/10.1037/1045-3830.23.4.587> Accessed 19 October 2021.
13. Department of Health Service Support. Official document requesting VHV's to set up smart OrSorMor application. 2018. [https://www.pbpro.moph.go.th/?post\\_type=document&p=15364](https://www.pbpro.moph.go.th/?post_type=document&p=15364). Accessed 21 May 2021.
14. Garrison DR. Critical thinking and self-directed learning in adult education: an analysis of responsibility and control issues. *Adult Education Quarterly*. 1992; 42 (3): 136–148.
15. Hofstede Insight. Thailand. n.d. <https://www.hofstede-insights.com/country/thailand>. Accessed 15 June 2021.
16. Knowles MS. *Self-directed learning: a guide for learners and teachers*. New York: Association Press; 1975.
17. O'Donnell D. Habermas, critical theory and selves-directed learning. *Journal of European Industrial Training*. 1999; 23(4-5): 251-261. <https://doi.org/10.1108/03090599910272121>.
18. Bourdieu P. The forms of capital. In: Richardson JG, editor. *Handbook of theory and research for the sociology of education*. New York: Greenwood; 1986. p. 241-258.
19. Keyes JE, Keyes CF, Hafner, JA. Thailand. 2020. <https://www.britannica.com/place/Thailand>. Accessed 15 June 2021.
20. Cassaniti JL. *Living Buddhism: mind, self, and emotion in a Thai community*. New York: Cornell University Press. 2016. <https://doi.org/10.7591/9781501700989>.