

Factors influencing the organizational engagement of village health volunteers, after the COVID-19 Outbreak in Phayao Province

Prachuab Lamluk¹, Sunanta Wongrattanakamon¹

¹School of Public Health, University of Phayao, Phayao Province, Thailand

Corresponding Author: Sunanta Wongrattanakamon **Email:** tatilookmoo@gmail.com

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ABSTRACT

Village health volunteers (VHVs) play a crucial role in promoting health advancements and enhancing community well-being. This cross-sectional descriptive study investigates the factors influencing organizational engagement among VHVs in Phayao Province. Data were collected from 400 volunteers using a questionnaire. Participants were selected through a multistage sampling method, with data collection conducted from April to May 2023. Analytical methods included descriptive statistics, Pearson's product-moment correlation, and multiple linear regression. The findings revealed that the majority of volunteers were female (77%), aged between 41-60 years (62.3%), married (81.3%), with over ten years of experience (61%), and had educational levels of high school or vocational certificate (46.8%). Most volunteers were agriculturists (63.5%), with incomes below 5,000 baht (54%), and served as general members (74.5%) in a single role (78.8%), primarily under the provincial administrative organization (54%). The scores for motivational factors, quality of life, and organizational engagement were high. The multiple regression analysis reveals that responsibility, the nature of the work itself, and recognition are significant predictors of organizational engagement among VHVs in Phayao Province. These factors collectively explain over half of the variance in engagement levels ($R^2=0.511$, $P\text{-value} < 0.05$), highlighting their crucial role in enhancing organizational engagement and satisfaction among the volunteers. Consequently, the study suggests that organizations should ensure appropriate working conditions and respect to foster greater engagement among VHVs.

Key words:

organization engagement; village health volunteer; quality of life, motivation

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INTRODUCTION

Village health volunteers (VHVs) are known to play a pivotal role in advancing health development and improving the quality of life within their communities. They act as agents of change,^{1,2} influencing health behaviors, combating misinformation, disseminating beneficial health information, coordinating public health services, and promoting the virtues of good health practices.^{3,4} VHVs have been essential in liaising with public health teams and maintaining close contact with community members during health crises, such as the COVID-19 pandemic.^{5,6} VHVs embody public participation in health care,⁵ striving to make communities self-sufficient in managing health long-term.² The COVID-19 outbreak underscored their critical role as frontline responders in various health emergencies, where they often operated under significant pressure.⁷ Challenges faced by VHVs include heightened community expectations, increased workload,⁶ risk of infection, and personal and economic strains impacting their quality of life and morale.^{8,9}

These challenges necessitate robust support systems in order to ensure VHVs' well-being in both their professional as well as personal lives,⁹⁻¹² thereby enhancing their job satisfaction, morale, and work efficiency.¹³ Facilitated by VHVs, the decentralization of health care management across communities not only strengthens Thailand's public health system but also minimizes hospitalization rates. Supporting VHVs in performing their roles effectively is crucial for the success of public health initiatives, ensuring that VHVs are both motivated and equipped to handle the demands of their critical positions within the health system.¹²

Following the COVID-19 outbreak, Thailand has experienced notable changes in its economy, society, politics, and management practices to keep pace with

global trends. These changes have a direct impact on personnel as they adapt to new environments. As a result, administrators must address several factors affecting employees, such as facilities, working conditions, welfare, and fair compensation. This includes considerations beyond just financial aspects, emphasizing human rights to ensure alignment with organizational objectives and promoting a collaborative and satisfied workforce. Creating a positive work environment leads to a high quality of working life and boosts organizational productivity.¹⁴ Organizations fostering such conducive atmospheres witness heightened employee dedication and engagement, culminating in collective organizational success.

Phayao Province, a small region in Thailand, is predominantly Buddhist and agriculturally focused, with abundant natural resources and diverse ethnic groups.¹⁵ The province is home to 15,085 VHVs serving 192,755 households across 9 districts, 68 subdistricts, 804 villages, and 14 communities. On average, one VHV caters to 13 households, with most volunteers aged 51-60 and having primary-level education.^{16, 17} Phayao Province presents unique challenges for VHVs due to its higher proportion of elderly residents (20% in 2022) and fewer healthcare facilities compared to other provinces, leading to increased workloads.¹⁸⁻¹⁹ To ensure VHVs' well-being and enthusiasm, public health executives must assess and address factors influencing their quality of working life, fostering stronger organizational bonds and enhancing performance. The Regulation of the Ministry of Public Health on Village Health Volunteers, B.E. 2011, establishes the roles and responsibilities of VHVs, highlighting the importance of adequate support. Additionally, the Notification of the Central Village Health Volunteers Promotion and Support Committee on the integration of Village Health Volunteers, B.E. 2024, provides a framework for enhancing VHV

engagement and effectiveness. By examining these regulations and their implementation in Phayao Province, this study seeks to provide actionable insights for policymakers and healthcare administrators.¹⁸

Therefore, this study aims to evaluate the level of organizational engagement among VHVs and identify the key factors that predict this engagement. The insights gained from this research could enhance volunteer satisfaction and performance, thereby improving the overall efficacy of public health initiatives in the region.

METHODS

Study design

A cross-sectional study was conducted among VHVs in Phayao Province, Thailand, spanning from April to May 2023, using a questionnaire-based approach.

Population and sample

The target population for this study comprised 15,085 VHVs. The sample size was calculated with the estimation formula for the population mean from n4Studies,²⁰⁻²²

yielding a minimum sample size of 375. Adjusting for a 5% attrition rate, the sample size was set at 400 participants. Inclusion criteria included VHVs with a minimum tenure of six months and those who consented to participate. Exclusion criteria encompassed VHVs who were absent during the data collection process and those with health issues impeding information provision. Participants were chosen using a multistage sampling method.

The procedure began by dividing Phayao Province into nine districts: Mueang Phayao, Chiang Kham, Chun, Chiang Muan, Dok Khamtai, Pong, Mae Chai, Phu Kam Yao, and Phu Sang. In the second step, five districts were selected using cluster sampling: Mae Chai, Phu Kam Yao, Chun, Dok Khamtai, and Chiang Kham. The third step involved randomly selecting five subdistricts from each of these chosen districts: Ban Lao, Ban Tham, Huai Kaew, Khun Khuan, and Rom Yen. Finally, five villages were randomly chosen using a simple random sampling method (non-replacement lottery method) from each selected subdistrict, resulting in a total sample size of 400, as illustrated in **Figure 1**.

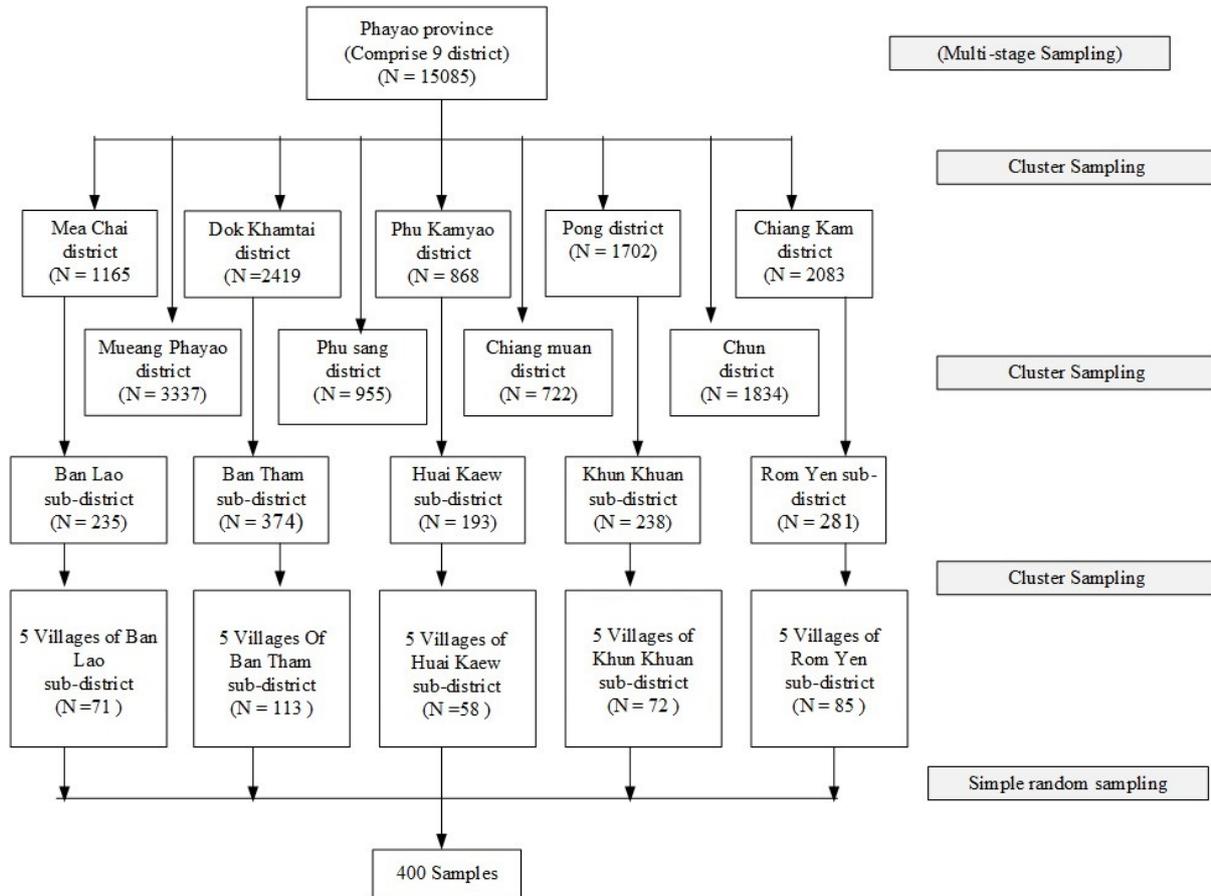


Figure 1. Flow chart for participants' selection

Research instrumentation

The questionnaire is divided into four parts as follows:

Part 1: Demographic Data, comprising nine items was developed by the investigator to collect personal information such as participants' gender, age, marital status, experience as a village health volunteer, education level, occupational status, monthly income, role as a village health volunteer, and position within the community.

Part 2: Motivation for Working as VHVs. This questionnaire was applied from Herzberg's Two-Factor Theory²³ and aims to obtain information that is useful for stimulating VHVs to enhance their performance. Therefore, we study only Motivation Factors which are divided into five dimensions: (1) Achievement (four items), (2) Recognition (five items), (3) Work Itself (six items), (4) Responsibility

(four items), and (5) Advancement (four items). The questionnaire includes 23 items. Each item is rated on a Likert-type scale from '1' (strongly disagree) to '5' (strongly agree), with scores categorized into three levels: low, moderate, and high. The reliability of this questionnaire was assessed using Cronbach's alpha coefficient, yielding values of 0.80.

Part 3: The WHOQOL-AGE is a brief, 13-item instrument designed to assess the quality of life (QoL) in older adults. It was developed by selecting items from the WHOQOL-BREF and WHOQOL-OLD instruments, covering aspects such as sensory abilities, autonomy, social participation, and intimacy.²⁴ The WHOQOL-AGE has demonstrated good psychometric properties and has been validated in a multi-country sample of older adults. It has two dimensions: (1) Physical/Psychological (8 items) and (2)

Social (5 items). Each item is rated on a Likert-type scale from '1' (very dissatisfied) to '5' (very satisfied). Higher scores suggest better QoL. The reliability of this questionnaire was assessed using Cronbach's alpha coefficient, yielding a value of 0.82.

Part 4: Organizational Engagement Questionnaire for VHVs. This questionnaire is based on the concept of Porter et al. (1964).²⁵ It contains 15 items divided into three dimensions: (1) Confidence in and acceptance of organizational goals (four items), (2) Willingness to contribute to the organization (six items), and (3) Desire to maintain membership in the organization (five items). Each item is rated on a Likert-type scale ranging from '1' (strongly disagree) to '5' (strongly agree), with scores classified into three levels: low, moderate, and high. The reliability of this questionnaire was evaluated using Cronbach's alpha coefficient, which yielded a value of 0.85.

The content validity of the questionnaire was assessed by three experts, and the index of item-objective congruence (IOC) ranged from 0.67 to 1.00. The reliability was further confirmed by measuring Cronbach's alpha coefficient in a sample of 30 individuals with similar characteristics.

Statistical analysis

The data analysis utilized statistical software programs in congruence with the study's assumptions. Descriptive statistical analysis was used to analyze the demographic data, motivation, QoL, and

organizational engagement of VHVs in Phayao Province, including the calculation of percentages, means, and standard deviations. Variable screening techniques, such as Pearson's Product-Moment Correlation, were applied. Stepwise multiple regression analysis was performed to assess the predictive power of each variable concerning participants' organizational engagement. The variables were confirmed to meet normality assumptions. A significance level of 0.05 was set for the statistical tests.

Ethical considerations

Ethical approval was provided by the University of Phayao Human Ethics Committee under Certificate No. UP-HEC 1.2/091/66, dated May 1, 2023.

RESULTS

General information on VHVs in Phayao Province

Table 1 shows that most participants were female (77%) and aged between 41 and 60 (62.3 %). Additionally, a substantial proportion of participants reported that they were married (81.3%) and had ten or more years of experience (61%). Most of them had completed their education at the Senior High School or Vocational Certificate level (46.8%). A significant number were employed in agriculture (63.5%) and reported earning less than 5,000 baht per month (54%). In terms of their roles, the majority were general members among the village health volunteers (74.5%).

Table 1. General information of the participants (n=400)

Demographic characteristics	Frequency (%)
Gender	
Male	92 (23.0)
Female	308 (77.0)
Age (years)	
20 - 40	47 (11.7)
41 - 60	249 (62.3)
> 60	104 (26.0)
Marital status	
Singer	35 (8.7)
Marriage	325 (81.3)
Widowed / Divorced / Separated	40 (10.0)
Experience of being a village health volunteer (years)	
< 5	59 (14.8)
5 - 9	97 (24.2)
≥ 10	244 (61.0)
Education level	
Primary School	104 (26.0)
Junior High School	76 (19.0)
Senior High School / Vocational certificate	187 (46.8)
Diploma / High Vocational certificate	18 (4.4)
Bachelor or higher degree	15 (3.8)
Occupational	
Unemployed	25 (6.3)
Agriculturist	254 (63.5)
Merchant	35 (8.8)
Day laborer	69 (17.2)
Other (personal business)	17 (4.2)
Income/Month (Baht)	
< 5,000	216 (54.0)
5,000-9,999	156 (39.0)
≥ 10,000	28 (7.0)
Role of a Village Health Volunteer	
Chairman	50 (12.5)
Vice Chairman	33 (8.3)
General Member	298 (74.5)
Other (Secretary, Assistant Secretary)	19 (4.7)
Position within the community	
None	315 (78.8)
Other (Subdistrict Headman, Village Headman, Civil Defense Volunteer)	85 (21.2)

Level of motivation for work, Quality of Life, and Engagement in the Organization of VHVs in Phayao Province

Table 2 reveals that overall, the motivation for work among VHVs in

Phayao Province is at a high level (\bar{X} =4.04, SD=0.36). When broken down by aspect, the highest aspect is the Achievement (\bar{X} =4.45, SD=0.45), while the lowest aspect is the Work Itself (\bar{X} =3.70, SD=0.60).

Similarly, the quality of life among VHVs in Phayao Province is generally high (\bar{X} =3.80, SD=0.49). Furthermore, their engagement with the organization of VHVs in Phayao Province is also high (\bar{X} =3.99, SD=0.69). When analyzed by aspect, the

highest aspect is the desire to maintain membership in the organization (\bar{X} =4.16, SD=0.62), while the lowest aspect is the willingness to work for the organization (\bar{X} =3.75, SD=0.85).

Table 2. Mean, standard deviation, and level of Motivation for work, Quality of Life, and Engagement to the Organization of the participants. (n=400)

Variables	Mean	SD	Level
1. Motivation for work	4.04	0.36	High
1.1 Achievement	4.45	0.45	High
1.2 Recognition	4.15	0.42	High
1.3 Work Itself	3.70	0.60	High
1.4 Responsibility	4.16	0.50	High
1.5 Advancement	3.89	0.46	High
2. Quality of Life	3.80	0.49	High
2.1 Physical/Psychological	3.66	0.93	High
2.2 Social dimension	4.02	0.82	High
3. Engagement to the Organization	3.99	0.69	High
3.1 Confidence and Acceptance	4.07	0.61	High
3.2 Willingness to work	3.75	0.85	High
3.3 The desire to maintain membership	4.16	0.62	High

Correlation coefficient with Engagement to the Organization among VHVs in Phayao Province.

Based on Pearson's Product Movement Correlation test presented in **Table 3**, the results show that motivation for work ($r=0.686$, $p=0.000$), recognition ($r=0.544$, $p=0.000$), the nature of the work itself ($r=0.604$, $p=0.000$), and responsibility ($r=0.609$, $p=0.000$) represented a positive relationship with organizational engagement among VHVs in Phayao

Province, with a moderately significant correlation. In a similar vein, this achievement ($r=0.262$, $p=0.000$) and the advancement ($r=0.371$, $p=0.000$) exemplify a positive relationship with organizational engagement, albeit with a weak significant correlation. Furthermore, quality of life ($r=0.140$, $p=0.005$) exhibits a positive relationship with organizational engagement, albeit with a very weak significant correlation.

Table 3. Correlation coefficient with Engagement to the Organization of the participants.

Variables	1	2	3	4	5	6	7	8
1. Motivation	1							
2. Achievement	.593**	1						
3. Recognition	.785**	.454**	1					
4. Work Itself	.790**	.176**	.536**	1				
5. Responsibility	.797**	.451**	.502**	.518**	1			
6. Advancement	.613**	.325**	.353**	.266**	.469**	1		

Variables	1	2	3	4	5	6	7	8
7. Quality of Life	.273**	.325**	.266**	.060	.208**	.258**	1	
8. Engagement	.686**	.262**	.544**	.604**	.609**	.371**	.140*	1

Note: 1 = Motivation, 2 = Achievement, 3 = Recognition, 4 = Work Itself, 5 = Responsibility, 6 = Advancement, 7 = Quality of Life, 8 = Engagement, * $p < .05$, ** $p < .001$, two-tailed

Predictors of the Engagement to the Organization among VHV in Phayao Province.

The present study employed stepwise multiple regression to analyze factors predicting organizational engagement among VHV in Phayao Province. Three variables showing moderate correlation based on the correlation study—responsibility, the nature of work itself, and the recognition—were entered into the regression equation.

These variables could predict organizational engagement at 50.7% with a statistical significance of 0.05 as illustrated in **Table 4**.

According to the analysis results, the equation to explain the organizational commitment of the VHV in raw scores can be written as below.

Organizational commitment of VHV = $-0.172 + 0.415$ (Responsibility) + 0.325 (Work Itself) + (0.292) (Recognition)

Table 4. Multiple regression analysis of factors predicting Engagement to the Organization.

Predictive variables	B	S.E.	Beta	t	Sig.
Responsibility	0.415	0.052	0.344	7.959	0.000**
Work Itself	0.325	0.045	0.318	7.180	0.000**
Recognition	0.292	0.064	0.201	4.582	0.000**
Constant (a) = -0.172, R = 0.715, R² = 0.511, Adjusted R² = 0.507, p < .001					

** $p < .001$

DISCUSSION

After the outbreak of COVID-19, VHV have been shown to have a strong bond with their organization. The study found that the overall level of engagement with the organization among VHV in Phayao Province was high, with an average score of 3.99 and a standard deviation of 0.69. This finding is consistent with the previous study, which examined the quality of working life and organizational commitment in public health organizations among VHV in Nan Province. In that study, the organizational commitment of VHV in Nan Province was also reported to be at a high level.¹²

The relationships between personal factors and organizational commitment among VHV were examined. It was found that the experience of being a VHV and

organizational commitment had a significant statistical relationship, with a Pearson Chi-Square value of 11.036 and a significance value of .026 ($p < .05$). This indicates a significant relationship at the .05 level. Additionally, the relationship between personal factors, specifically the position in the community and organizational affiliation, was also significant. The Pearson Chi-Square value was 7.370 with a significance value of .025 ($p < .05$), indicating a significant relationship between community position and organizational affiliation of VHV. There is a significant statistical relationship at the .05 level, similar to a previous study on the quality of working life and health Organizational commitment in public health organizations of VHV in Nan Province.¹²

This descriptive research aimed to investigate the organizational commitment of VHVs in Phayao Province. Similar to findings in Nan Province, VHVs in Phayao Province exhibit a high level of organizational commitment. The aspects ranked from highest to lowest include trust in and acceptance of organizational goals, desire to maintain organizational membership, and willingness to exert effort for the organization. Furthermore, the study explored the relationship between the quality of working life and health organizational commitment among VHVs. It revealed a significant positive correlation, indicating that a better quality of working life is associated with higher health organizational commitment among VHVs.

Specifically concerning factors influencing organizational commitment in Phayao Province, it was found that motivation for work, respect for the nature of work, and a sense of responsibility positively correlated with organizational commitment among VHVs. These relationships were statistically significant at the 0.01 level, reflecting a moderate strength, similar to the previous findings.¹⁷ The level of performance according to the role of VHVs was at a high level (Mean= 4.16, S.D.= 0.50). This study suggested that healthcare agencies should be motivated and provided with basic hygiene factors to improve the work performance of VHVs.

The achievement of work shows a positive correlation with the organizational commitment of VHVs in Phayao Province, with statistical significance at the 0.01 level, indicating a low level of correlation. This aligns with a previous study involving 358 participants (average age = 36.3 ± 12.2 years), which found that the perceived risk of infection was positively associated with emotional exhaustion, while job resources were negatively associated.⁸ Safety systems, communication, decision-making,

and participation in decision-making helped buffer the impact of perceived infection risk on emotional exhaustion. These findings highlight the importance of a supportive work environment in reducing stress and enhancing well-being, which, in turn, fosters organizational commitment. Adequate job resources and support systems are crucial for maintaining high levels of organizational engagement and job satisfaction, emphasizing the importance of continuous improvement and knowledge dissemination within the organization.

Furthermore, the section on progress and quality of life revealed a positive relationship with the organizational commitment of village health volunteers in Phayao Province. This relationship was statistically significant at the 0.01 level, with a very low correlation strength, which is consistent with the findings of a previous study on the quality of work life and its impact on the operational performance of Bangkok Health Volunteers.⁹ Their study found that approximately 55.64% of BHVs reported a moderate level of overall quality of work life, and the overall operational performance in urban community health management was also at a moderate level of 50.91%. Education level, area of responsibility, and other community roles significantly influenced the operational performance of BHVs in urban community health management (p-value < 0.05). Additionally, aspects of work environment, competency development, social relationships, benefits, and compensation were also statistically significant factors affecting operational performance (p-value < 0.001).

The current study utilized stepwise multiple regression analysis to examine predictors of organizational commitment among VHVs in Phayao Province. Following a correlation analysis, three

variables—responsibility, nature of work, and respect for work—demonstrating moderate correlations were included in the regression model. Together, these variables significantly predicted organizational commitment with a statistical significance of 50.7% (Adjusted $R^2 = 0.507$, P -value < .001). This result is consistent with findings from the previous studies.^{26,27} Therefore, enhancing organizational development and quality in managing health service systems, public health systems, and consumer protection hinges on fostering highly competent personnel through enhanced motivation and support. These personnel are pivotal in driving the organization toward achieving its vision.

RECOMMENDATIONS

Drawing from comprehensive insights gathered in the study serves as a crucial blueprint for enhancing village health volunteers' commitment to the organization. It is recommended to broaden the research scope to include additional factors such as quality of work life, organizational atmosphere, job satisfaction, and organizational culture within Phayao Province. Exploring these diverse aspects will contribute to compiling a more comprehensive and valuable dataset, thereby offering richer insights for organizational enhancement and support. This approach aims to foster a deeper understanding of the factors influencing organizational commitment among village health volunteers, ultimately facilitating more effective strategies for organizational improvement.

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CONFLICT OF INTEREST

The authors declare no conflict of interest in this study.

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