

Village Health Volunteers (VHV) Performing Responsibilities in the Midst of the COVID-19 Pandemic, Nakhon Si Thammarat Province, Thailand

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Abstract:- Cross-sectional survey research was included in this study. The aims were to investigate the severity of COVID-19 perception and COVID-19 preventive behavior during VHV role performance. Investigate the relationship between disease severity perception and preventive behavior on the COVID-19 among VHV performance. The research site is in Nakhon Si Thammarat Province, Thailand. The cross-sectional survey research was conducted on 445 village health volunteer (VHV) performances. The data were collected by using the questionnaires, which showed the Cronbach alpha coefficient of perception severity diseases of COVID-19 and COVID-19 prevention behavior equal to 0.89 and 0.85. The data was analyzed using Pearson's Product Moment Correlation Coefficient. The results revealed that the majority of village health volunteer (VHV) performance perception for COVID-19 was equal to $\bar{x}=2.67$, S.D. = 0.57, and most of the VHV had prevention behavior for COVID-19 during duty performance at a high level for 72.0 percent. The results of the correlation between perception severity of COVID-19 diseases and prevention behavior of COVID-19 during the duties performance of a VHV have a positive correlate with prevention behavior during the duties performance of a VHV that is statistically significant at the level of 0.01 ($r=0.198$, $p < 0.01$).

Keywords:- Perception Disease Severity, Prevention Behaviors, Coronavirus Disease 2019, Village Health Volunteer(VHV)

I. INTRODUCTION

Village Health Volunteers (VHV) are the villagers in the community who have the volunteer spirit to help and take care of their own health, family, and community in terms of volunteering without expecting anything in return. From 2021 until nowadays, it plays an important role in the primary health system by helping Thai people to have good health and being the key personnel in the community who provide various essential health services. During the pandemic of the coronavirus 2019, they performed important duties that they had never faced before. It is helping the government sector by knocking on the door and giving the Coronavirus disease 2019

prevention suggestions, self-observation, distributing surgical masks and methods of social distancing, using alcohol and avoiding the crowd areas, high-risk clusters searching, patient screening and active case finding. Moreover, they are following up on close contact tracing and isolating the home, quarantining it if necessary. They also provide help care to people in the community and screen people who will participate in various activities or participate in important ceremonies in the community in order to correspond with the COVID-19 prevention protocol. This includes asking villagers to use a mobile application to report disease and infected people. This will make villagers notice the trend of the pandemic situation. The Village Health Volunteer's operation is about the volunteer, which no one forces them to do and is trained by public health personnel in order to be able to perform initial medical care in a pandemic of COVID-19 situation.

During the Coronavirus 2019 pandemic in Thailand since 2020, the number of infected has increased rapidly due to high-risk clusters returning from overseas and people returning from Bangkok and the perimeter to their provincial domicile. It effects the pandemic by making it spread widely and causing extensive economic and social loss. In every province, there is ongoing coping with the pandemic.

The Village Health Volunteer (VHV) is the important frontline who fulfills with volunteer spirit the high-risk clusters searching for and monitoring the inflection of Coronavirus disease 2019 in the community, determined and selfless along with medical and public health personnel. Moreover, the number of VHV in Nakhon Si Thammarat is 28,166 people from 23 districts.

In terms of performance duty, VHV must have knowledge of and prevention behavior for the coronavirus 2019. VHV's role in social distancing 1) Raising awareness about social distancing and providing appropriate knowledge and understanding through door-to-door outreach to educate and publicize the media through various community channels. 2) Co-create the Social Distancing protocol by managing the community environment, collaborating as a team to provide knowledge and screen high-risk clusters, and acting as a team for monitoring, tracking, admonishing, and

suggesting in the event of protocol non-compliance.3) serving as a role model in the case of social distancing by performing for the public at various events such as meritocracies and funerals. As it is illustrated, since Thailand has faced the pandemic of Coronavirus 2019 and now a continually pandemic. All the time, that's been said, VHV performs duties such as helping people by monitoring the elderly in fieldwork. For people who have chronic diseases, Village Health Volunteer (VHV) will deliver medicine to patients' homes; 71 percent of them will receive medicine at their home. They provide blood drawing and blood pressure measurement services for people who have chronic diseases. [1] Devoting their time, sweat, and strength to aiding population health, VHV is the group of people who are closest to the population.

The Thai Health Promotion Foundation recommends knocking on doors for observation of COVID-19 symptoms with people who have returned from a high-risk area when performing duties as a VHV for surveillance, prevention, and control of the Coronavirus disease 2019.[2] Most importantly, because Village Health Volunteers are the frontline workers who approach high-risk clusters, performing the duties of a VHV necessitates a high level of knowledge and abilities. VHV contributed significantly to disease control. The roles of village health volunteers: COVID-19 prevention and control in Thailand.[3] It is important to perceive the severity of Coronavirus disease 2019 in order to raise the Village Health Volunteer awareness and have Coronavirus disease 2019 preventive behavior.

Perceived severity is the belief of people who evaluate the severity of disease in their body, illness, or disease. There are severe effects on their health and lives, such as death or difficulty in treatment. If they do not follow the disease prevention suggestions or cooperate in medical treatment, it will be harmful to their bodies. The study found that those with a high perception severity of COVID-19 disease have good COVID-19 prevention behaviors. They wash their hands frequently, wear surgical masks all the time, keep a social distance, and do not leave the house. [4] Perception of the severity of COVID-19 disease has an effect on disease prevention behavior. [5]

At the end of the year 2021, there will be a rapidly increasing number of COVID-19 pandemics in Nakhon Si Thammarat, which will become the highest rank in the southern part of Thailand. It is an important mission for villager health volunteers to provide assistance to the highest-risk clusters and people who have to be quarantined for COVID-19 clusters. The duties of villager health volunteers have the highest risks of exposure to COVID-19. If the villager health volunteers perform invalid according to Village Volunteer Practice Guidelines (VHV), as well as the lack of awareness in terms of social distancing when entering community areas and doing activities with the community, etc., which is one of the causes that tend to increase the risk of disease. It will cause an impact on yourself, increase the number of diseases, and cost an extravagant amount of money in terms of treatments. [6]

As a result, the pandemic could increase VHV's invalid performance. Like a response, it's indeed critical to investigate VHV perceptions of disease severity and preventative action while doing duty on the COVID-19. The research findings will be used in planning development and will provide knowledge to VHVs in order for them to practice proper COVID-19 preventative behavior.

II. MATERIALS AND METHOD

This research is a cross-sectional study about the correlation of perception of disease severity and preventive behavior during duty performance on the COVID-19 among VHV in Nakhon Si Thammarat Province. This research was conducted from April to July 2021. The chosen area of study was recognized as one of three areas in Thailand that have the highest rate of COVID-19 infection. In addition, Nakhon Si Thammarat Province during the research was categorized as a dark red area. There are 28,166 VHV that perform duties in Nakhon Si Thammarat using Simple Random Sampling (SRS). There are 445 VHVs based on the high infector district area zone.

➤ *Instrument and Data Collection*

The data collection uses questionnaires. The questionnaire consisted of three parts. The first part contained data on the demographic characteristics of the respondents, such as individual characteristics, age, gender, religion, education, status, occupation, COVID-19 perception, and period of work as VHV. The second part contained data on perception of COVID-19 disease severity and consisted of 24 statements using a 3-point rating scale (high, moderate, and low), and the third part, with preventive behavior during duty performance on the COVID-19 among VHV, consisted of 15 statements using a 4-point rating scale (never, sometimes, often, and always).

➤ *Statistical Analysis*

This research used statistics as follows: Frequency Percentage Mean Standard Deviation: SD stands for Pearson's Product Moment Correlation Coefficient. [7] The researcher tested the preliminary agreement by considering the distribution as normal and linear with the F-test.

III. RESULTS

Part 1: The demographic characteristics of the respondents showed that the majority of those who participated were female (93.9 %). The average age was 51.3 years old. The average period of work as VHV was 15.3 years. Most of the participants were Buddhist (85.2 %). Most of the participants' education was primary school, accounting for 42.2 %. 71.9 % of those who took part were married. They were agricultural for 44.5 % of the time. Public health personnel received 91.2 percent of COVID-19 perceptions. During the COVID-19 pandemic, 98.7 percent of people had no family members infected with the virus (Table 1).

Table 1. Demographic characteristics of the respondents (n = 445).

Variable	Category	Frequency (%)
Gender	Male	27(6.1)
	Female	418(93.9)
Age	<20	1(0.2)
	20-39	56(12.6)
	40-59	261(58.7)
	>59	127(28.5)
Period of work as VHV	1-20	147(33)
	21-40	153(34.4)
	>40	145(36.6)
Religion	Buddhist	379 (85.2)
	Islam	66(14.8)
Education	Primary	188(42.2)
	Secondary	180(40.4)
	Diploma	52(11.7)
	Bachelor	25(5.6)
Marital Status	Single	37 (8.3)
	Married	320 (71.9)
	Divorced/ Widow	88 (19.8)
Occupation	Agricultural	198 (44.5)
	Contractor	114 (25.6)
	Merchant	82 (18.4)
	Own Business	6 (1.3)
	Housekeeper	45 (10.1)
COVID-19 perception	perceived	443 (99.6)
	unperceived	2 (0.4)
Sources of information	Public Health personnel	371 (91.2)
	VHV's friend	241(59.2)
	acquaintance	162(39.8)
	Communication broadcast	169(41.5)
	Radio Television	281(69.0)
	Public relation car	187(45.9)
	Social media	282(69.3)
	Printing media leaflet	104(25.6)
Have someone in your house infected COVID-19?	Have	6(1.3)
	Have not	439(98.7)

Part 2: Perception of Disease Severity COVID-19 of VHV's perceived severity of diseases like COVID-19. "You wear a mask every time you conduct your duties," gets the greatest average ($\bar{x}=2.97, SD=26$). According to Table 2, "coronavirus illness is a condition that causes severe lung infections" ($\bar{x}=2.96, SD =.39$).

Table 2 Perception severity diseases of COVID-19

Perception severity diseases of COVID-19	\bar{x}	SD.	Level
1. The coronavirus disease spreads easily and quickly.	2.86	.41	high
2. Not wearing a mask is risk of contracting coronavirus disease.	2.94	.30	high
3. Following up with people who came back from risky areas that are risk of contracting coronavirus disease.	2.78	.46	high
4. If you do not wash your hands after the screening service. There is a risk of contracting coronavirus disease.	2.89	.34	high
5. The mutated coronavirus disease will become more infectious and more severe than before.	2.89	.33	high
6. The virus spread via droplets by coughing and sneezing within 1-2 meters.	2.82	.45	high
7. Some people who are infected with coronavirus disease show no symptoms. It is making them a risk of spreading coronavirus disease to others.	2.93	.26	high
8. Coronavirus disease is a dangerous contagious disease.	2.95	22.	high
9. Coronavirus disease is a contagious disease that can cause death.	2.84	40.	high
10. Coronavirus disease is a disease that causes severe lung infections.	2.96	39.	high
11. People with congenital disease can be more severe and life-threatening.	2.95	22.	high

.12 People with diseases requiring separate treatment rooms	2.91	31.	high
13. The coronavirus quickly harms various internal systems.	2.85	38.	high
14. If people with diabetes, heart disease, lung disease be infected coronavirus disease. They would be risk of death.	2.95	23.	high
15. You avoid going to crowded places.	2.87	41.	high
16. You wear a mask every time when you perform your duty.	2.97	26.	high
17. You wash your hands with soap or alcohol gel every time after touching thing.	2.93	25.	high
18. You hurried to take a shower, wash your hair, wash your clothes and clean your items every time after returning from duty.	2.92	28.	high
19. You eat freshly cooked food and use a middle spoon.	2.93	27.	high
20. Masks are expensive.	1.86	60.	moderate
21. Wearing a mask makes you difficult to breathe.	1.87	63.	moderate
22. Cannot wash hands or use alcohol gel every time after grabbing or touching things.	1.65	75.	moderate
2.3 Alcohol gel is expensive.	1.87	60.	moderate
24. It is necessary to work in crowded places such as bazaars, shopping malls.	1.76	78.	moderate
Total	2.67	57.	high

Part 3: The level of perceived COVID-19 of VHV illustrated that in perceived benefits of action, the average is highest ($\bar{x}=2.91, SD=0.20$). The secondary was the perceived severity of the disease ($\bar{x}=2.89, SD=0.17$) (Table 3).

Table 3 The level of perceived COVID-19 of VHV was classified as following.

Perceived COVID-19	\bar{x}	S.D.	Level
Perceived susceptibility to disease	2.73	0.21	high
perceived severity of the disease	2.89	0.17	high
perceived benefits of action	2.91	0.20	high
perceived barriers to action	1.81	0.49	moderate
Total average	2.67	0.57	high

Part 4: The prevention behavior COVID-19 during the performance of VHV showed that the majority of VHV have prevention behavior all the time, especially on "Always wear a mask and every time during work" for 78.7 percent and "When returning from work, you take a shower to cleanse your body, clothes, and items immediately" for 72.4 percent (Table 4).

Table 4 Prevention behavior COVID-19 during duties performance of VHV.

Prevention behavior COVID- 19 during duties performance of VHV.	Prevention behavior COVID-19			
	never	often	sometime	always
1. Always wear a mask and every time during the work.		3((0.7)	92(20.7)	350((78.7
2. Wash your hands when you touch or grab things.		8((1.8)	123((27.6)	(70.6)314
3. Stay more than 2 meters away from the group of people returning from the epidemic area.	(0.9)4	(4.0)18	(26.5)118	305((68.5
4. Avoid going to crowded places.	(0.7)3	22(4.9)	127(28.5)	293(65.8)
5. Always bring alcohol get when performing duties		15(3.4)	129(29.0)	301(67.6)
6. Social distancing, stand/ sit more than 2 meters away, not get-together and avoid sharing meals with others.	1(0.2)	19(4.3)	141(31.7)	284(63.8)
.7Checking body temperature before entering work.		7(1.6)	129(29.0)	309(69.4)
.8Register "Thai Chana" every time when entering various places.	16((3.6)	(17.8)79	135((30.3)	(48.3)215
.9Used masks are put in a sealed plastic bag before disposing of it in the Garbage with a tight lid		19(4.3)	126((28.3)	300((67.4
10. While sitting on a motorcycle, avoid talking or sit facing side and not straddling sit.	11((2.5)	(10.3)46	142((31.9)	246((55.3
11. After disposing of used masks, Hands will be cleaned immediately with alcohol gel or soapy water.		17((3.8)	(29.9)133	(66.3)295
12. You wash your hands with soap every time after touching things around you such as stair railings and doorknobs.	1((0.2)	(5.4)24	161((36.2)	259((58.2
13. When there is an illness, you sleep in a separate room from other people in the house.	6((1.3)	32((7.2)	143((32.1)	(59.3)264
14. Observe yourself for symptoms of fever, cough, runny nose, sneezing, sore throat, shortness of breath, or difficulty breathing. If	11((2.5)	(4.3)19	102((22.9)	(70.3)313

you found that you have some of these symptoms. You would stop working and see a doctor immediately.				
15. When returning from work, you take a shower to cleanse your body, clothes and items immediately	(0.2)1	(2.5)11	(24.9)111	(72.4)322

Part 5: the level of COVID-19 prevention behavior while performing duties as a VHV. The majority of VHV have COVID-19 prevention behavior at a high level during duty performance (72.0%) and secondary at a moderate level (24.8%).

Table 5: The level of prevention behavior COVID-19 during duties performance of VHV (n=445)

The level of prevention behavior COVID-19	Quantity	Percent
VHV have prevention behavior at high level (50-60 points)	309	72.0
VHV have prevention behavior at moderate level (40-49 points)	117	24.8
VHV have prevention behavior at low level (30-39 points)	29	3.2

Part 6 of an investigation into the relationship between perceptions of the severity of COVID-19 diseases and COVID-19 prevention behavior while performing duties as a VHV. The results of the correlation between perception severity of COVID-19 diseases and prevention behavior of COVID-19 during the duties performance of a VHV by the statistic Spearman rank correlation coefficient show that perception severity diseases of COVID-19 has a positive correlate with prevention behavior during the duties performance of a VHV that is statistically significant at the level of .01 ($r=0.198$, $p<.01$) as Table 6.

Table 6 shows the correlation between perception severity diseases of COVID-19 and prevention behavior COVID-19 during duties performance of VHV.

Variable	r	P-value
Perception severity diseases of COVID-19 and prevention behavior COVID-19 during duties performance of village health volunteer (VHV)	0.198	<0.00**

Spearman's correlation

**Statistically significant ($P < 0.01$)

IV. CONCLUSION AND DISCUSSION

The result of this study showed that perception of disease severity and preventive behavior on the COVID-19 of VHV were at a high level. Because VHV recognized emerging infectious diseases and dangerous contagious diseases (Declaration of Public Health, 2020), there was a rapid global outbreak and a large number of deaths, particularly in Thailand's Nakhon Si Thammarat. There is a pandemic in the communities rapidly and a high rate of infection that was considered to be 1 of 5 in Thailand. Public Health declared the VHV guidelines to perform duties following the disease prevention for Village Health Volunteer (VHV) protocol. There was operated by knocking on the door, giving the Coronavirus disease 2019, preventing suggestions, high-risk clusters searching, and operation result reporting continually. [8] similar to the vulnerability, perceived risk, and fear that can significantly increase participation in preventive behaviors during the novel coronavirus pandemic. severity had significant indirect effects on the intention to follow. Intention to follow had significant direct effects on actual behavior and adapted behavior, which subsequently led to perceived effectiveness. [9]

The correlation between the perception of severity of COVID-19 diseases and COVID-19 prevention behavior during the duty performance of a VHV was investigated. The result showed that there was a positive correlation with prevention behavior during the duty performance of VHV, which was statistically significant at the level of 0.01 in accordance with the Health Belief Model: HBM. [10] A person's perception is an indicator of behavior and prediction of health behaviors related to disease prevention. In other words, when a person

perceives the benefit of prevention against the contagious disease COVID-19, it will be a motivation for self-prevention behavior by following the guidelines, means, and doing self-prevention. [10] Due to the awareness of the whole world about COVID-19, it is very easy to get infected with the disease if you do not follow the guidelines strictly. So a person must work for a corporation to prevent this disease. It can be explained, for example, by the idea of Becker. [10] There were both within- and across-time correlations between COVID-19 risk perception indicators and preventive actions. [11] Perceived susceptibility, perceived severity, subjective norms, perceived behavioral control, and intention explained 61.3% of adolescents' COVID-19 preventive behaviors. [12]

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