

## Role of Village Health Volunteers on Acceptance of Basic Vaccines by Thai Muslim Parents in the Three Southern Border Provinces of Thailand

### Original article

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### Abstract

Vaccine hesitancy and refusal is still the predominant problem in the three southern border provinces of Thailand. Despite the availability of immunization services, vaccine hesitancy and refusal remain a pressing public health challenge in the three southern border provinces of Thailand, particularly among Muslim communities. This study employed a qualitative phenomenological approach to depict role of VHVs on acceptance of basic vaccines in the three southern border provinces of Thailand, through the perspectives by Thai Muslim parents. Fifteen participants were selected through purposive sampling based on the inclusion criteria. In-depth, face-to-face, semi-structured interviews were conducted. After data saturation, data were then thematically analyzed using a modified Colaizzi's seven-step method for data analysis. Thematic analysis generated five key themes in relation to explore an important role of VHVs on acceptance of basic vaccines in the three southern border provinces of Thailand, through the perspectives by Thai Muslim parents, comprised: Theme 1: The role of building trust; Theme 2: Effective communication; Theme 3: Being a role model; Theme 4: Working with service mind; and Theme 5: Having work ability. The results will be beneficial for strategies or planning related to promoting basic vaccine coverage in children in the Muslim majority regions.

**Keywords:** Three Southern Border Provinces, Vaccine Acceptance, Basic Vaccines

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## Introduction

The complexity of delay in acceptance or refusal of vaccination has been causing increasing global concern. The occurrence of vaccine refusal over the past several decades has led to it being listed as one of the ten biggest global health threats declared by the World Health Organization (WHO) (WHO, 2019). Since 2018, the three southern border provinces of Thailand, i.e., Yala, Pattani, and Narathiwat, have experienced recurrent outbreaks of vaccine-preventable diseases, most notably measles and pertussis (Office of Disease Prevention and Control Region 12 Songkhla, 2024). According to reports from the 12<sup>th</sup> Health Region, Thailand, which includes Trang, Phatthalung, Satun, Songkhla, Yala, Pattani, and Narathiwat, from August 13, 2023, to February 6, 2024, there were 639 reported cases of pertussis, mostly in young children. Almost all of them were in the three southern border provinces: Pattani (250 cases), Yala (245 cases), and Narathiwat (132 cases), totaling 627 cases, which is 98.12%. There have been 7 reported deaths (Office of Disease Prevention and Control Region 12 Songkhla, 2024).

The cause of the incidence was that these patients, especially children aged 0-5 years, do not receive vaccinations due to parents refusing vaccines. According to the previous studies, results illustrated that refusing parents did not bring their children to get vaccinated in the three southern border provinces due to religious beliefs, viewing vaccines as containing impure (*najis*) and non-halal (*haram*) components (Daya, Lillahkul, & No-in, 2018; Domeng & Prateepko, 2018; Tepsing, Laeheim, & Chelong, 2024). Also, there were negative attitudes towards vaccines, such as believing that vaccines are unsafe or may cause undesirable side effects (Daya, et al., 2018; Jinarong, Chootong, Vichitkunakorn, & Songwathana, 2023; Sirithammaphan, Chaisang, & Pongrattanamarn, 2023). Additionally, limitations in the service system, lack of decision-making power

regarding vaccination, and insufficient information about vaccines were also found as the reasons for parental vaccine refusal and hesitancy in this region (Daya et al., 2018; Sirithammaphan et al., 2023). This conclusion could be seen as vaccine hesitancy and refusal still being the predominant problem in the three southern border provinces of Thailand, despite the availability of vaccination services. Health authorities have attempted to address vaccine refusal issues and design strategic plans to promote basic vaccination for children from birth to 5 years of age, i.e., tuberculosis vaccine (BCG), hepatitis B (HB), diphtheria–tetanus–pertussis (DTP), oral/inactivated poliovirus vaccine (OPV/IPV), Haemophilus influenzae type B (Hib), measles-mumps-rubella (MMR), Japanese encephalitis (JE), and rotavirus, in the three southern border provinces of Thailand (Jinarong et al., 2023; Langputeh, Ranee, & Langputeh, 2023).

The VHVVs have been the formal structures of Thailand's health system at the forefront, providing health services, since the 1960s (Kowitt, Emmerling, Fisher, & Tanasugarn, 2015). Nowadays, more than 1 million VHVVs are responsible for the primary healthcare of 23 million households in 75,032 villages (Krassanairawiwong, Suvannit, Pongpirul, & Tungsanga, 2021). Previous studies found that VHVVs play a vital role in vaccine education and promotion to increase vaccine uptake through community engagement and mobilization (Shumba, Kiraithe, Kambo, & Shaibu, 2024). From the review of literature on vaccine acceptance among Muslim parents in the three southern border provinces of Thailand, results revealed that VHVVs, as part of an interdisciplinary team, are particularly important in influencing Muslim communities to accept vaccinations (Hajietae & Langputeh, 2020; Langputeh et al., 2023). However, it was found that phenomenological studies concerning the predominant roles of VHVVs on acceptance of basic vaccines for preschool

children aged 0-5 years through experiences of Thai Muslim parents are scarce. Therefore, researchers need to conduct a study on how VHVs influence Thai Muslim parents' acceptance of basic vaccines for preschool children aged 0-5 years in the three southern border provinces of Thailand. The results will be beneficial for strategies or planning related to promoting basic vaccine coverage in children in the Muslim majority regions.

### Research Methodology

This study employed a phenomenological methodology designed to explore and understand the lived experiences of individuals. Specifically, the research aimed to investigate the role of VHVs on acceptance of basic vaccines for preschool children aged 0-5 years by Thai Muslim parents in the three southern border provinces of Thailand, i.e., Yala, Pattani, and Narathiwat.

### Study Population and Sample

Fifteen participants in this study were selected through purposive sampling based on the following inclusion and exclusion criteria as follows.

Inclusion criteria:

- 1) Primary caregivers (parents or legal guardians) of children aged 0-5 years who hold decision-making authority regarding childhood vaccinations.
- 2) Born, raised, and living in the three southern border provinces of Thailand,
- 3) Deciding to receive basic vaccinations for their children with a history of refusing or hesitating to receive basic vaccines, and 4) Using either or both the local Malayu language or Thai language for communication.

Exclusion criteria

- 1) Withdrawing from being a participant or not willing to disclose information and
- 2) unable to complete the interview process.

### Study Design

This study employed a qualitative phenomenological approach to depict the role of VHVs in the acceptance of basic vaccines in the three southern border provinces of

Thailand through the perspectives of Thai Muslim parents. Data were collected through in-depth, face-to-face, semi-structured interviews with parents of preschool children, using purposive sampling to recruit participants.

### Data Collection

An interview guide based on the indicators of the problems in the research with a phenomenological approach was developed by the researcher. The researchers designed open-ended inquiries on broad topics with flexibility based on the conversation. This approach aimed to obtain in-depth and comprehensive information relevant to the study. The questions were open-ended on various topics and included three types of interview formats: descriptive questions, structural questions, and contrast questions. Data were collected between March and April, 2025 at the participants' homes. Each interview lasted 45-60 minutes and focused on the experiences of Thai Muslim parents in the three southern border provinces regarding the acceptance of basic vaccines for preschool children aged 0-5 years.

### Data Analysis

During more than one month period of data collection, we collected 15 tape-recorded interviews from 15 participants, each lasting approximately 48 minutes to a little over an hour. After data saturation, data were then thematically analyzed using a modified Colaizzi's seven-step method for data analysis. Colaizzi's (1978) distinctive seven step process provides a rigorous analysis, with each step staying close to the data (Colaizzi, 1978).

### Rigor and trustworthiness

The trustworthiness of this study was ensured by adhering to the following procedures. First, the primary researcher, Nayuwal Sudwilai, conducted a pilot study and was trained by a phenomenological expert to help the researcher improve her data collection activities and outcomes. Second, the accuracy of the transcriptions was thoroughly rechecked and confirmed by listening to the recording of each interview while checking

against the transcripts. Third, the quantifying causal emergence of similar data from interviews 1 and 2 illustrated strong evidence for dependability. Fourth, all of the authors discussed the analysis and came to a consensus about the results.

### Ethical Approval

This study was officially approved by the Ethics Committee for Human Research Subjects at the Sirindhorn College of Public Health in Yala, which is part of the Faculty of

Public Health and Allied Health Sciences at the Praboromarajchanok Institute in Thailand (IRB no. SCPHYLIRB-2568/120). During data collection, the researchers initially introduced personal information, and explained the objectives of the study, measures taken to ensure confidentiality, including data protection, and the benefits and risks of the study to the participants. Every step of data collection is regarded as a cultural sensitivity protocol and willingness of participants to participate in the study.

## Results

### Characteristics of study participants

The findings were sourced from 15 participants, female, aged between 22-35 years, who were willing to participate in the study. Table 1 describes the characteristics of the participants.

**Table 1.** Characteristics of the participants

Participant number	Province	Total minutes of interview	Age (Years)	Educational level	Occupation	Household income	Number of children
1	Pattani	55	35	secondary school	Housewife	7500	3
2	Pattani	60	26	Primary school	Housewife	5000	1
3	Pattani	52.35	32	secondary school	Housewife	8000	2
4	Pattani	52	33	secondary school	Housewife	5500	4
5	Pattani	45.68	29	Primary school	Housewife	6500	2
6	Pattani	45	28	Primary school	Housewife	5000	2
8	Yala	54	23	secondary school	Housewife	7800	3
9	Yala	55	28	secondary school	Housewife	6500	1
10	Yala	49	30	secondary school	Housewife	5000	1
11	Yala	45	29	secondary school	Housewife	5500	2
12	Narathiwat	60	35	secondary school	Housewife	6800	2
13	Narathiwat	59	22	Primary school	Housewife	6000	1
14	Narathiwat	46	22	Primary school	Housewife	5000	3
15	Narathiwat	45	27	secondary school	Housewife	5000	2

Thematic analysis generated five key themes in relation to exploring an important role of VHV's in the acceptance of basic vaccines in the three southern border provinces of Thailand, through the perspectives of Thai Muslim parents, comprised of: Theme 1: The role of building trust; Theme 2: Effective communication; Theme 3: Being a role model; Theme 4: Working with a service mind; and Theme 5: Having work ability.

### Theme 1: The role of building trust

The trust of parents in VHV's is a crucial factor influencing their decision to accept basic vaccinations for their preschool-aged children. In the context of diverse cultures and languages, as in the three southern border provinces of Thailand, the trust in VHV's by their communities stems from their close proximity. VHV's are individuals who live in the same community, have long-standing familiarity, and are like extended family members. This closeness makes parents feel safe to discuss, inquire, and listen to vaccine recommendations from the VHV's. VHV's, consequently, are often the first line of contact with the health system. They also provide continuous advice on daily health care, helping to alleviate fears or concerns for these parents. As illustrated by the following examples of some statements,

*“I trust the VHV's. Before getting the vaccine, I asked her if anyone had already been vaccinated. She said her child had been vaccinated too, and nothing happened to them. We trust VHV's because they are sincere and close to us like our relatives.”* (1<sup>st</sup> participant)

*“Whenever there is any health information, the VHV's will always come and tell us everything. We trust the VHV's. They are sincere; I can say that because we know each other. They told us directly even the side effect of vaccine, it might be a fever, but it won't be much. Their (VHV's) kids got vaccinated too, and there were no problems at all, no fever either. When the VHV's said this, we thought we would give it a try....”* (7<sup>th</sup> participant)

*“The VHV's is important for us. They live in the same village as us and always come to provide information to us. If sometimes we are afraid to talk with health officers because we are not close to them, we can easily talk to the VHV's. This is because they are close to us. We trust them because we all live together; we are on the same side.”* (1<sup>st</sup> participant)

### Theme 2: Effective communication

Effective communication from VHV's plays a crucial role in changing the health behaviors of parents in the three southern border provinces. According to the local language of the three southern border provinces of Thailand, many people especially Muslim population communicate with the “local *Malayu* language” in their routine and daily lives. Because of speaking the same language, as VHV's also use the same local *Malayu* language, it is easy for parents to understand what information is provided by the VHV's. Furthermore, due to a friendly speaking style using the same informal language, VHV's can bridge emotional gaps, convey understanding, and make clients feel free to ask queries about vaccines and infectious diseases. The important role of VHV's regarding the vaccine promotion campaign stems from long-term relationships with their community members. This helps them to explain the benefits of vaccines in a way that appropriated with the parents' level of understanding. They can also naturally answer various questions or concerns and share the experiences of vaccinated individuals in the area, such as stories of community members who received the vaccine without side effects or how it can reduce the severity of disease outbreaks. These factors are crucial in gaining parents' acceptance of vaccines and their decision to have their children vaccinated according to the specified criteria, as illustrated by the following example of a speaker's words.

*“They (VHV's) live close to my house. If I need anything, I can tell them right away, faster than the officials. They work during the day, but I can tell them anything at any time, even at night. They are easy to talk to, trustworthy, and speak *Malayu* like us. We can talk casually in the same language, and they can understand me and my family easily and they are also friendly.”* (4<sup>th</sup> participant)

*“If we speak *Thai* (language), we understand a little, sometimes we understand, sometimes we don't. We're afraid to ask some questions in *Thai* because we don't understand much, and are concerned for*

*speaking incorrectly. If we speak Thai, we're excited and shy at the same time. The things we used to know, we keep to ourselves, because we don't need to ask. If we speak Malayu, we understand more. It's more comfortable to speak Malayu. It's like when we talk to VHV's. We feel comfort because they can speak Malayu with us....."* (8<sup>th</sup> participant)

### **Theme 3: Being a role model**

The results posit that the role model has to reflect a fear of perceived negative social consequences and, at the same time, highlight the positive consequences of getting a basic vaccination. Acting as role models themselves by being pro-vaccine for VHV's has become a strategy that helps parents reduce their anxiety about the side effects of the vaccine. Since the VHV's are Muslims and live in the same community, when they decide to vaccinate their children and share their vaccination experiences to convince others, it has a greater impact on changing parental concerns about the undesirable effects of vaccination. As illustrated by the participants' statements.

*"I trust them (VHV's) because before getting the vaccine, I asked them if anyone had already received it. One of them told me she said her child had received it and nothing happened. I trust her; whenever she has something wrong, she tells us everything."* (1<sup>st</sup> participant)

*"Their (VHV's) kids were all taken to get vaccinated, and none of them had any issues. She (one of VHV's) mentioned that there was just a little fever; it's just a bit. She told me her kids were provided vaccination, not only basic vaccines but also other vaccines, such as the flu and the COVID vaccine, without any serious side effects. So, I decide for my kids to get vaccinated"* (10<sup>th</sup> participant)

### **Theme 4: Working with service mind**

Results illustrated that health services from VHV's were not inferior to those provided by

other health workers and sometimes better. Although VHV's performed less well in more complex tasks such as diagnosis and counseling, most participants found their health services to be really satisfactory. As some of them stated,

*"VHV's always remind us when we forget an appointment. They sometimes come to remind us at our house. We are appreciative of it. They (VHV's) are really having a service mind."* (7<sup>th</sup> participant)

*"They (VHV's) live close to my house. If I need anything, I can tell them right away, faster than the officials. They work during the day, but I can tell them anything at any time, even at night. They are easy to talk to....."* (4<sup>th</sup> participant)

### **Theme 5: Having work ability**

Well-trained and motivated health workers, the VHV's will be able to perform their work with more efficiency and effectiveness after receiving thirty-seven hours of foundational training plus six hours of training in elective topics. The VHV's, consequently, will be able to perform their work with more efficiency and effectiveness. Many VHV's possess the essential skills to provide their clients with knowledge and information about vaccines.

*"They (VHV's) know a lot about health, not just vaccines. They also know about other aspects of our child's development, nutrition, dietary, and breastfeeding. We can ask them. Sometimes, when we read something on Facebook, whether it's true or not, we can ask the VHV's, and they can answer us."* (1<sup>st</sup> participant)

*"I think that she probably goes for training several times because she has a good knowledge about health. During the measles outbreak, she knew what to do. Her job was to notify the health officer if someone was ill. During COVID, she was the one who brought the medicine to us and knew how to take it. That's why I think she is knowledgeable and skilled."* (2<sup>nd</sup> participant)

## Discussion

According to the results, VHVs play a crucial role in addressing parental vaccine refusal and hesitancy among Muslim communities in the three southern border provinces of Thailand by building trust, communicating effectively, working with a service mindset, being a role model, and having work ability. There are several studies explaining why VHVs are so important and highly needed in the Thai countryside. Thai VHVs are well selected and accepted by the majority of the community members based on their value of generosity and voluntary service mind, delivering health services to community members with their heart and passion. They also have to pass the required VHV standard training courses and have been continuously training in order to take care of community health. As a result of this training, the individuals effectively fulfilled their roles and successfully completed all activities in a short time (Jewjinda & Chalermnirundorn, 2018; Jiaviriyaboonya, 2022).

In the three southern border provinces of Thailand, the sociocultural context of local villages is characterized by a kinship-based society. The people in the community exhibit kinship relationships. The VHVs are also relatives, speaking the same language and having close ties with community members. This close relationship makes VHVs better at building trust with community members for providing their health services (Ogutu et al., 2024; Stamidis et al., 2019), including acting as role models of good health behavior to others (Cohen & Cohen, 2024). Previous studies regarding the roles and responsibilities of VHVs or community health volunteers (CHVs) to address parental vaccine refusal and hesitancy in the Muslim community illustrated that these informal healthcare workers are respected and trusted by the Muslim community. They are usually responsible for misinterpretation of the health information (Liku et al., 2024; Shumba et al., 2024). Also, community health volunteers acting as role models by receiving vaccinations first was especially crucial in

influencing their communities to accept basic immunization (Vanderslott et al., 2024). Additionally, community members should have the opportunity to ask questions and receive accurate information about side effects or symptoms after receiving vaccinations from the VHVs or CHVs, as this may help reduce fears and encourage vaccine uptake (Phiriyasart, Aimyong, Jirapongsuwan, & Roseh, 2023; Shumba et al., 2024). According to the health belief model (HBM), cues to action, one of the HBM components, in terms of interpersonal communication sharing, serve as triggers that motivate an individual's intention to accept vaccination (Li & Sun, 2025). Results indicated that parents initially refused vaccination until a particular cue motivated them to consider the vaccine's efficacy and the minimal current risk of any adverse consequences. Previous study revealed that VHVs play an important role in addressing vaccine-related issues by providing information, inviting people to vaccinate, and raising awareness about the importance of vaccinations. They work proactively by providing home visits. Even if they are not professional healthcare providers, they can identify problems and promote vaccine uptake for their target population (Phiriyasart et al., 2023). Besides, these informal health workers require training and education about the importance of vaccines and how misconceptions can affect immunization rates (Liku et al., 2024).

## Conclusion

To address vaccine refusal issues in the region, VHVs and their interdisciplinary team can actively address vaccine refusal issues in the three southern border provinces of Thailand by promoting vaccine education and increasing vaccine uptake through community engagement and mobilization. In addition, there is a need for necessary training and education for these informal health workers on the importance of vaccines and the impact of misconceptions on immunization. According to the limitation of the study, there is a potential risk of

disseminating misinformation due to inconsistent training, as well as variability in interpretation and delivery of health information among individual VHVs.

### Research Implication

1. The research findings could be applied as fundamental data for improving immunization services that are appropriate to the socio-cultural context of the people in the three southern border provinces of Thailand.

2. Results could be used to enhance collaboration between VHVs and public health personnel to bridge the gap between health personnel and the community members in the Muslim majority region.

### Suggestions for the further study

1. Developmental research should focus on creating vaccination information leaflets, manuals, or media for

communication that uses both Thai and *Malayu* languages, ensuring they are suitable for the lifestyles of local people in certain areas of the three southern border provinces of Thailand.

2. There should be an ethnographic study on perceptions or beliefs affecting vaccine acceptance among local people in the three southern border provinces.

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