

## ORIGINAL ARTICLE

# Perceptions of Physical Activity among Older Adults in Rural Communities Southern Thailand

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## ABSTRACT

**Introduction:** Thailand promotes the regular engagement of physical activity (PA) among its older population to gain health benefits. However, the majority of this group does not achieve sufficient levels of PA to meet the minimum guidelines recommended by Thailand's National Health Policy. This study explores how older Thai adults living in rural community context, southern Thailand perceive participation in PA along with the barriers that enable them to participate regularly in PA. **Methods:** Five focus group discussions were investigated consisting of older members living in Muslim and Buddhist communities in southern Thailand. Thematic analysis was used to analyse the data. **Results:** All older participants were aware of the health benefits of PA. Forty - three considered themselves to be active as part of their daily activities. The kinds of PA they practised were based on local lifestyles and individual convenience. Biological, psychological, social and environmental factors were revealed as motivations and barriers regarding consistent PA. **Conclusion:** This paper provides a conceptual understanding about the perceptions of PA among older people living in rural communities of southern Thailand. The findings have implications for health care professional who care for older groups. The provision of needs and supports related to their backgrounds and lifestyles could reduce barriers and increase accessible resources to achieve effective levels. The information should be valuable to those interested in designing suitable interventions to increase participation in PA.

**Keywords:** Perceptions, Physical activity, Older adults, Rural community context, Southern Thailand

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## INTRODUCTION

The majority of countries in the world, including Thailand are experiencing the health related impacts of an aging population and sedentary lifestyles (1, 2). The number of Thais aged 60 and over has grown rapidly from 7 per cent in 1994 to 15 per cent in 2016 and is expected to reach over 30 percent of the total population by 2035 (3, 4). The population of older Thais is growing at a faster rate than in many Asian countries and in developed nations (5).

To promote the good health of older populations, physical activity (PA) is a determining factor when engaged in regularly (6, 7). It reduces the risk of developing cardiovascular and chronic non-communicable diseases (NCDs) and premature death. People who

engage in regular, moderate to vigorous PA tend to live longer compared to those who live sedentary lives (8, 9). It has been shown that regular PA increases life expectancy up to two years by the age of 80 (10). This practice is congruent with the priority of World Health Organization (2); promoting healthy lifestyles. This is because it can reduce "severe disability from disease and health conditions is one key to holding down health and social costs" (p. 1).

But there is limited information in Thailand respecting the participation of older adults in PA; the best estimate is that about one-third of adults of at least 60 years of age living in central Thailand participate in regular PA (11). As in many other countries (12, 13), Thailand follows the World Health Organization physical practice guidelines for improving health of Thais (14): 150 minutes of moderate movement each week and 75 minutes vigorous intensity per week. The actual prevalence or measures of participation in PA among older adults in Thailand have been reported in two studies. The first in 2011 by Kraithaworn et al. (8) revealed that among

older people of a low socio-economic status in central Thailand, less than one-third met the guidelines. The second, by Ethisan et al. (11) in rural Thailand, does not compare participation against the national guidelines, but suggests that the majority of adults 60 years of age do not practise often.

In addition to these limited estimates of participation in PA, little is known about the perceptions, barriers and associated factors that govern regular participation in PA among adults 60 years of age and over. From the available evidence for older adults of a low socio-economic status a lack of PA was due in part to health problems, moderate confidence in their ability to participate, low social support and moderate awareness of their physical environment facilities. These are similar to barriers identified by older adults in other countries (6, 13, 15), suggesting a commonality among older populations with regards to participating in regular PA.

Any available evidence on participation in PA among older adults within Thailand has been collected among residents living in the central region. There is little report on how these findings translate to other regions of Thailand. No current information exists from the South of the country where the culture is more diverse than in other areas. Buddhism and Islam societies lead people to have different ways of life, beliefs, languages and cultures. Besides the geographical distinction is surrounded by mountains, it creates a variety of agricultural forms. Main family economy depends on weaving home products, growing rice farms and selling grocery items. Any attempt to increase regular participation in PA among older adults in this particular community of Thailand requires understanding and produces insight concerning participation (11). The aim of this paper is to gain insight into the perceptions towards PA among older people in rural communities, southern Thailand.

## **MATERIALS AND METHODS**

### **Study design**

We adopted phenomenological study as it helps us to expand deeper understanding of people's opinions, experiences, attitudes and beliefs about PA (16). A focus group method was used to explore perceptions towards PA among older adults living in a rural community southern Thailand. Two community groups were recruited: Buddhist and Muslim. Initial contact was made with local organisation members and community leaders through personal contact directory. The recruitment process was carried out through health personnel and a leader in the local community. Five focus groups were conducted; three in Buddhist and two in Muslim communities. We carried out five group discussions because saturation of data occurs. The focus group discussions emphasised group interaction through discussion, sharing and the comparing of experiences.

This technique encourages every person to have the chance to share their experiences (17, 18).

### **Participants**

Purposive sampling was employed to recruit participants who were 60 years of age and willing to discuss their perceptions about participation in PA. Fifty-two older people participated in our study. About half were afflicted by chronic illness: hypertension, diabetes and high cholesterol levels. They lived in agriculture areas producing diverse products: rubber, palm, rice and fish. More than two-third reported that they received a low monthly income between 600 and 1,000 baht (about US\$20-30). Some owned small grocery shops while several participants had stop working and were housewives. This latter group also spent time looking after their grandchildren.

### **Data collection method**

The study was approved by the University Human Ethics Committee in Thailand (No. E 007/2560). Then we employed focus group discussions which comprised between 10 and 15 members. At the beginning of each focus group session, we informed the participant about study background, objectives and how they can contribute to our project. Information sheets and written consent forms were distributed among group attendees. They were assured confidentiality concerning their responses. If anyone wished to withdraw, they were permitted to do so at any time without prejudice (19). The local southern dialect was used in conversations to establish rapport and trust, and to encourage participants to explain things in their native language. The guide included certain questions, such as: From your perspective what does PA mean? How do you do PA? How often do you do PA and why? What inspires you to participate in regular PA? What barriers are there to participating in regular PA? Each group discussion was about two hours in length. A digital voice recorder was used to record the group discussion.

### **Data analysis**

All the recorded data was transcribed verbatim and the names re-assigned to ensure confidentiality. Thematic analysis was used to analyse the focus group discussions. We analysed these data using a manual coding technique involving open coding and then axial coding was used to develop the final themes. This step was completed by taking the codes we had developed during open coding and reorganising them by making connections between categories and subcategories. The results were used to explain the perceptions of the older adults about PA.

## **RESULTS**

Five themes emerged from the data analysis: 1) perceptions of PA; 2) types of PA for older adults; 3)

good time and right place for PA; 4) motivations to PA and 5) barriers to PA

### Perceptions of PA

There was a wide range of perceptions about PA among the focus group members in both communities. Participants in Buddhist community described PA as *karn keaun whai rang kaai* (the movement of body) or any activity that was integrated into part of their daily work and made their bodies move and function. Nearly all were engaged in agricultural activities; many grow vegetables, plants and seeds around their houses; some were involved in intensive farming. Whilst being able to complete these kinds of activities was considered a sign of good health.

Older Muslims remarked that PA and exercise is similar concept and practice. Both helped them *yeurd sen sai* (stretch peripheral organs and nerves). Many perceived PA as a "kind of moving arms and legs that lasts for about 30 minutes a day and it should be performed 3-4 times a week." They recommended that "if one can do like this every day, he will get best benefits and less likely to be afflicted by chronic diseases." Some stated: "the more they sweat the more they can release poison from the body and boost immunisation." Feeling relaxed and being happy were considered positive consequences of doing PA. Some said that PA can promote better remembering among older people and can prevent them from being susceptible to diseases:

"I am not sure for other persons...for me, it helps with relaxing the mind, our memory remains growing, not that much loss of memory, feel energetic and keep me fit...see, [I] am 78 years old now and still in good health".

All participants in both communities acknowledged PA as an important practice for promoting the health of older populations. They tended to agree that every older person should perform regular PA for health and fitness. It can reduce the risks of chronic and cardiovascular diseases. We found that over half of the participants in our study strongly supported PA as daily practice. It should be their first priority for the day and set into the daily schedule. A female from Muslim community, 65 years old, articulated:

"If sweating...[I] feel fresh. If only sleeping, no sweat... will [get] stress easily. I try to make time for exercise like jogging everyday...[it] makes my heart beating better... strong".

A Buddhist female, 71 years old, shared similar thought:

"Will do PA continually...it is part of my life. If [we] keep moving our body, our body will be happy. If happiness disappears, we cannot go anywhere...life then come to the end".

### Types of PA for older adults

Older members in this study performed various types of PA. Because of their age, health conditions and individual preferences, there was a preference for activities that did not require much intensity.

As many considered that PA and exercise are based on similar premises, older people in the Muslim community usually perform each day included slow aerobic dancing, *mai plong* (pole stick exercises), stretching, yoga, walking, jogging, rope jumping and rudi dudon (Thai traditional stretching). Some preferred doing alone, whereas many tended to join in group practice as this gave them a sense of community and relationship. One member group, 67 years old, said: "run along the street in the village... till get sweating or feel tired...don't wait for anyone. It is around 500 meters everyday...[it is] okay, I think".

Buddhist members participated in similar activities as their Muslim member counterparts. Common activities included hula hoop, *mai plong* (pole stick exercises), jogging walking, stationary bicycle riding and Thai traditional stretching. Many participants reported that these activities were not difficult for them to practise and did not need advanced technical equipment. These activities did not require specific places and areas and there was no cost for participating. They sometimes visited a public space available in their communities for PA and wear everyday clothes rather than wearing sport shirts and shoes.

"I like doing *jakrayarn argard* (air cycling)...laid down on the floor, stretch out the legs and keep steering in the air...counting till ten...sit up and embrace chest...then stretch out [my] hands...no need to wear sports stuff... no sport shoes, just every day clothes".

Although each community preferred slightly different PA, more than half of participants in each community reported that they like to perform with a group. Most believed that the leader is essential as an instructor gives them a sense of group support. Many highlighted that they were not confident that they could perform certain PAs correctly when alone. An older female adult, 73 years old, from a Muslim community stated: "I think we must do it together...it [is] much better encouraging each other...have more fun. We can do [it] better. I am sometimes shy to do it alone...also lazy to do it alone." One member, 79 years old, from Buddhist community supported this:

"...I always go to that house...[It is] Mali's house. I can perform well...we do together... I have more confidence...not too embarrassed...good to have a leader and company..."

For many Muslims, prayer is considered a type of PA. Muslims pray five times a day and think that this

performance can count as PA because they have to move the body parts using different postures and steps. Although the duration of the prayer activity is about five minutes for each session, this accumulates to 25 minutes each day in total. They believed it was light PA and possibly sufficient to maintain good health for older person.

### **Good time and right place for PA**

While there was little debate on the importance of PA, participants differed in their views on the appropriate time for PA. They felt it difficult to know what the best time of the day was to practise because everyone was different and had their own responsibilities and lifestyles. Thus it rather depended on an individual's convenience and preference. The suitable times for this activity were therefore varied and related to his/her roles and lifestyles.

Early mornings and late evenings were reported to be the best possible periods for this kind of activity. Half of the participants in each group preferred in the early morning before performing other tasks throughout the day which could have interfered and prevented them from working out. It was also safer to do in the early morning because there were fewer cars and motorcycles on the street. A 76 years old man shared his view:

"I woke up at 3.30 am every day. I went to the mosque do cleaning and things like that. I then walked around the mosque for more than half an hour. It then is time to pray...It suits me and there is no risk from motorcycle accidents and things like that...it's good, isn't it?"

Many people in both groups preferred doing PA in the late evening. The reason was that people felt more relaxed at that time. They can meet many people, or even join in group. Some felt unsafe when doing it in early morning. One group member supported:

"The dog on the street...afraid to walk in early morning alone...if having company, it would be better. One can hit the dog when it comes close making the dog scared...lots of dog on the street nowadays, especially in early morning...I can die from dog bite...plenty of dogs on the street... "

We discovered from the group discussions that the common places that older people in both communities used for this activity were varied. In the Buddhist community, they preferred local streets, house, health care centre and the school. The grounds of the mosque community were used by members of the Muslim community. An older women said:

"There are many places we can do exercise; village street, mosque, school. School in particular, there proper designs for exercise at school. Everyone can go... I can see there are a lot of people going to school

in the evening every day. They do all kinds of physical movement".

### **Motivations to PA**

Motivations to PA among participants participated in this study occurred at the individual, social and community environment levels. Group members suggested several factors they thought would motivate older people in their community to start and continue with PA. They believed that the benefits derived from PA would be the key factor to increasing participation in PA. Once the benefits of PA were realised, participants were encouraged to develop a routine to participate in PA. Many believed that once participation in PA is developed as a habit, it is easier to carry out. Some people do not have an adequate knowledge about the health benefits of PA, and are therefore unlikely to join.

"For me...because it can release tension in my head...I feel comfortable...tension in my head always go away after doing PA. So I believe that it helps. I should keep doing it...someone may not think like me..."

Group members felt that sufficient equipment and facilitates helped maintain PA among older groups. Without exception, the older members of the Buddhist community pointed out that having modern equipment to facilitate PA in their local community was a motivation. In effect, facilities should be distributed to all parts of the community and this could encourage the use of facilities when needed. A group member, 65 years old, pointed out:

"If we have enough equipment in our local community, this can motivate older people to participate and this can help people to engage in PA...you see. We can access any time we need..."

### **Barriers to PA**

There are similar barriers among Muslim and Buddhist communities that discouraged people from participating in PA programs. A common barrier was the lack of a PA instructor, or leader in their communities. An instructor or activator plays a vital role in encouraging regular participation in PA. Many participants felt they would have more confidence when practising PA alongside a leader or instructor.

Health or illness was other barriers to performing PA among older members. Participants reported common health problems and diseases suffered by the older adults in both communities such as arthritis, hypertension, diabetes, high cholesterol, asthma, weakness and obesity. These kinds of disease were basic barriers to participation. The effect of such symptoms and diseases caused pain and stress that prevented participation in PA.

"...[I am] unwell and have disease...cannot stand for a

long time. [It is] difficult to move and walk...very tired when walking even just 100 meters..."

The lack of time was a common barrier identified by participants in this study. They lead busy lives, with the vast majority still working in the fields and farms. The busy lives of the participant were a huge barrier to adhering to PA routines. Undertaking PA is thus considered as additional task that they struggled to fit into their daily activities. An older Muslim female, 64 years old, articulated her concerns:

"I...don't have time... don't have time...no... busy everyday...finish this job and has another [thing] is waiting...difficult [for me] to make time for that..."

## DISCUSSION

This study set out to explore the perceptions of older adults living in rural community, southern Thailand towards PA. The results were similar to those of older adults in Central Thailand. PA was perceived as a positive healthy activity that requires regular engagement for health benefits (6, 7). Older adults living in Southern Thailand remain actively engaged in the workforce, in agriculture, and sharing responsibility with their children for care of the family.

Overall, older adults in this study felt that PA should be integrated into their daily routine schedule, because it can reduce the chances of developing chronic diseases and remain longer in better health. These results are supported by Kraithaworn et al.; Ethisan et al.; and Barreto et al. (8, 11, 20) who found that PA is a key strategy in promoting good health in older people. Barreto et al. (20), also found that participating in regular PA can improve the functional ability and flexibility of individuals; and this resulted in increased life expectancy. The results of this study highlight the challenges faced by Thai older adults, who remain engaged in what is often physically demanding agricultural work, along with domestic duties, and who have little discretionary time and motivation to engage in PA.

Whilst the Buddhist and Muslim communities attended separate discussion groups, few cultural differences were seen in relation to the importance of regular participation in PA. Older persons from both communities preferred participating in simple activities, such as walking, or using a stick, rather than in organised or structured activities. They did not think much about PA in terms of such concepts as duration and intensity, but were focused more upon the frequency of PA. Although many engaged in work and daily activities, they did not consider these as proper practice. Ethisan et al. (11) pointed out that most older Thai people are far from being involved in effective PA as they remain physically inactive and engage in sedentary behaviour. Costello et al. (21) recommended that effective PA in all conditions

among adults should consist of 30 minutes of moderately intensive PA five days a week, and at least two days a week if this is used for muscle-strengthening practices.

The participants in our study reported that there were barriers to regular PA that were in accord with an ecological framework made up of biological, psychological, social and environment dimensions (22). This study reported barriers in relation to biological aspect such issue as injury and health conditions whereas psychological feature involved matter like having low self-discipline and having no time. The barriers caused by social and environment dimensions covered work commitments, insufficient instrument, poor environments and distance. These barriers have been reported in other studies (21, 22, 23). The studied by Costello et al. (21), indicated that individuals can find the strategies to overcome those barriers and pursue PA, if they were physically active people.

However, in the current study there were major influential social and cultural factors that determined how older adults viewed PA as separate from work, but still as part of everyday activities. It is also clear from this study that older adults in Thailand, particular in rural society pursue busy lives, with limited free time available to participate in regular PA. When older Thai adults did want to undertake physical movement, they were often faced with hazardous environmental conditions: unsafe streets, busy roads, insufficient open spaces and equipment. Any attempts to increase PA among older adults in rural community should consider when and where PA can take place.

The older adults in this study were motivated to engage in regular physical active because they believed that it could prevent poor health when aging and the maintenance of good health. Maintaining a PA lifestyle was advocated by peers and exercise group members. These findings are consistent with the study of Janssen and Stube and Lim and Taylor (6, 24). Previous research reporting about friends, exercise staff, safe footpaths and safe neighborhoods show these are significant factors promoting participation in regular PA. Among older adults of low socioeconomic status living in an urban community (Bangkok), self-efficacy was found to be the most powerful predictor of regular PA (8). This is similar to the results in this current study which shows participants were focused upon the decisions of individuals to overcome barriers themselves to participate in PA. It remains unclear as to how successful self-efficacy alone is in motivating the undertaking of regular PA in the long term, especially given the weight of evidence that environmental and social support within an ecological framework are most likely to produce sustainable behaviour change.

This study was based on a qualitative methodology and the number of participant was relatively small. The

findings then cannot be generalised to older adults across Thailand. Nevertheless, employing a qualitative study can accumulate new knowledge about the perceptions of PA among older adult groups in southern region where the culture is quite diverse. Our findings also add to the missing literature concerning the perceptions of PA among older adults living in rural community. This should ease healthcare professionals and sectors in the locality to provide appropriate support to promote PA among this group. They can have longer life with good health.

## CONCLUSION

The findings of current study provide unique perspectives of older adults living in regional Thailand and their attitudes and beliefs towards PA. Compared with their counterparts in other countries, older Thai adults were more reliant on their own self-efficacy to engage in regular PA. Barriers, such as employment, child care and domestic duties that continue late into life are major barriers to the discretionary time available for PA. The built environment presents a major barrier to access to safe facilities for PA. Older adults were aware of the importance of regular PA for their health, although some did not consider work and domestic activities as PA. For those concerned with promoting regular PA among rural older adults, consideration should be given to emphasising the benefits of PA, and incorporating the value of self-efficacy for regular PA as a central intervention theme.

Understanding ecological factors can assist health care providers and relevant authorised organisations at multiple levels to pay attention to developing appropriate intervention or strategies to deal with barriers to promote regular PA among older adults in rural settings. They should thus be able to continue PA and integrate it in their routine lives. This could lead to longer lives and delay the development of chronic diseases.

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