

Insights from leaders on effectively addressing overweight and obesity in the Thai community

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ABSTRACT

Introduction: Effective management of healthcare system at the district level through an important health project can improve health and quality of life of people in the district. Key factors to drive a successful project are important. The purpose of this study was to explore perspectives of leaders managing the healthcare system at a district level on preventing and resolving issues of overweight and obesity within their communities.

Methods: The participants of this study consisted of nine district health board committees, ten members of the district health system startup team and twenty-three village health system managers. Data were collected by using focus group interviews, observation and documents analysis, also analyzing data by summarizing and categorizing the data of main points.

Results: The study results indicated that managing successful health problems at the district level needed: 1. creating clear and equal understanding, 2. having precious community capital and 3. integrating effective incentives for people in the community.

Conclusions: The findings of the study can be used as a guideline for managing the healthcare system at a district level through a project for the development of health issues and the quality of life among people in a community. This successful health system management can help develop the sustainability of public healthcare at the district level.

Keywords: district health system, health system management, improving health problems, success

Introduction

Healthcare reform under the concept of the District Health System (DHS) is an important strategy that the Ministry of Public Health of Thailand has pushed to strengthen health services to people in communities based on the context of each community since 2013 (Tejativaddhana et al., 2018). The concept focuses on integrating the participation of populations in each community and collaborating with multisectoral partners in the community to manage the population's health problems and develop knowledge and abilities of people in that community regarding their way of life and their culture (Office of Permanent Secretary Ministry of Public Health, 2014); Tejativaddhana et al., 2016). The important aim of using DHS is to enable people in the

community to improve their quality of life, be self-reliant and take care of their health continuously and effectively, leading to a strong community healthcare system (Saelee, 2014, 2020; Tejativaddhana et al., 2018).

The management of DHS in each district in Thailand has been run by the District Health Board (DHB), the DHS startup team, and the Village Health System managers (VHSMs) since 2016. DHB consists of leaders from public, private and people sectors of each sub-district (Ministry of Public Health, 2016; Thojampa, 2019) while the DHS startup team is comprised of healthcare providers from a district hospital and health promoting hospitals of that district. In addition, the VHSMs consist of village chiefs and village health volunteers from each



village in each district. They manage and govern the DHS based on one district health project which is an important health problem for most population in the district. They also support knowledge, guidelines, budget, resources to improve quality of life among the population in that district (Jariya et al., [2018](#)).

Several districts of Thailand were selected to run DHS projects, including a district located in the north of Thailand. This district has crucial health problems such as hypertension (HT), diabetes mellitus (DM), and especially overweight and obesity. Evidence showed that children and adolescents of this district had obesity at 11.06% and 11.34% in 2017 and 2018, respectively, and people aged 30-59 years old had obesity at 37.68% (Kamphaeng Phet Provincial Public Health Office, [2019](#)). Overweight and obesity have become a significant health problem in Thailand and the second highest prevalence of obesity in Asia. Around 37.7% of Thai population aged \geq fifteen years old were overweight and obese (Pinchaleaw, [2018](#)). Overweight and obesity can cause metabolic syndrome, resulting in increasing in HT, DM, cardiovascular diseases and stroke (Karnjanapiboonwong, [2020](#); Lalam, Chaimai, & Fukfon, [2022](#)). Rates of DM patients with obesity from 2015 to 2017 were 9.23%, 11.42%, and 12.20%, respectively (Kamphaeng Phet Provincial Public Health Office, [2019](#)). Overweight and obesity is an important district health issue for most citizens with all ages in this district. Before using DHS under one important project of the district, healthcare providers of the district dealt with overweight and obesity problems through giving nutrition and physical activity education to the population in the district and following the government's policies, such as the Fatless Belly This policy and the Soda Ban policy. Unfortunately, there was a lack of serious cooperation from every sector and participation of populations in this district. Overweight and obesity control and prevention among population in the targeted district did not succeed. Therefore, in 2018, solving overweight and obesity and non-communicable diseases of the population at this district was run through a DHS startup project, titled "We all Far Away from Obesity," with the aim to decrease overweight or obesity, DM, and HT among citizens in this district. The results of this operation over two years found that not only the number of citizens who were overweight and were obese was reduced, but also rates of new patients with DM and HT decreased (Kamphaeng Phet Province, [2020](#)).

It is important to learn success stories in management of DHS through a district health project. Therefore, the researchers were interested in exploring

successful health system management at the district level from direct experiences of the DHS leaders. The findings would provide important information to guide the development and strengthening of DHS management through a DHS project among people in other areas according to the DHS concept.

Materials and Methods

The purpose of this study was to explore perspectives of leaders managing the healthcare system at a district level on preventing and resolving issues of overweight and obesity within their communities. The study was conducted at a district located in the lower northern region of Thailand in 2020. The population of the study was 21 DHB members, 25 DHS startup team members, and 100 village health system managers (VHSMs). Participants were eligible for participation in this study if they were (a) aged 20 years old and over, (b) had no physical or mental health problems, (c) self-identified as Thai speaking and (d) were willing to share their perspectives on driving the district healthcare system in a focus group. Convenience sampling was used as the sampling methods. There were 9-12 people for each focus group. Data were obtained through four focus group discussions with a total of 42 participants. There were nine district health board committees, 10 members of the DHS startup team and 23 VHSMs. The participants who could not complete the focus group process were excluded. The researchers divided focus group based on homogenous group. Therefore, there were one DHB group, one DHS startup team group and two VHSM groups.

The researchers collected the data based on guideline questions regarding success of driving the "We all Far Away from Obesity" project. The focus group interview guidelines were developed by the researchers. Key questions were perspectives of participants on operational processes, outcomes, success factors and any suggestions to drive the project to effectively improve quality of life of the people in the district. The focus group interview guideline was pilot tested with eight VHSMs who were not the targeted participants. Four focus group discussions took place in a meeting room at the district hospital. The focus group discussions continued until there was no new relevant information. At the end of the fourth focus group, the researchers felt that data saturation had been met because no new theme emerged, so the researchers stopped recruitment. The duration of the focus group interviews for each group was about 100-120 minutes. In addition,

data collection was also performed through non-participant observation and documents.

Ethical approval for the study was obtained from the Institutional Review Board (IRB) of the university (Project No.0750/62). After ethical approvals were obtained, a researcher contacted the leader of the DHB, the DHS startup team, and the VHSMs in order to introduce themselves, inform the research study, and ask for help about recruitment participants. At the beginning of group discussions, the researchers explained the rules and participated in the discussions as a facilitator to create a positive interactive atmosphere throughout the discussion and let the participants express their perspectives freely. The researchers recorded the focus group interviews, using a tape recorder, following the consent of the interviewees. Afterwards, the recorded contents were transcribed verbatim.

The data analysis began with the researchers transcribing the focus group discussions' audio files verbatim. Data were coded using the content analysis method. Main themes were derived from the data and identified from the codes. Finally, the researchers integrated main themes and data to compare perspectives among the DHB, the DHS startup team, and the VHSMs. To ensure the validity of the research data, the researchers used methods of triangulation. The researchers used different data collection methods on the same subject, including observation, focus group discussions, and information from related documents. The researchers analyzed documents related to implementations of the DHS startup project, "We all Far Away from Obesity." The researchers examined goals, implementations, or activities of the project and correlated the data with the perspectives provided by the participants from group discussions. The results indicated that the information obtained from different data collection was consistent.

Results

Study sample

A total of 42 participants attended the four focus groups. The DHB group included the Deputy District Chief, the Chief Executive of Subdistrict Administrative Organization, the Subdistrict headman, the Director of the hospital, the District Public Healthcare Center Director, a policeman, a school director, a community developer, and an agricultural research officer. For the DHS startup team group, there were five public health officers, four registered nurses, and one nutritionist. Moreover, the VHSMs group included 13 village chiefs

Table 1. Participant demographics

	The DHB team (9)		The DHS startup team (10)		the VHSM team (23)	
	N	%	N	%	N	%
Gender						
Male	7	77.78	6	60.00	12	52.17
Female	2	22.22	4	40.00	11	47.83
Age (years)						
30-40	3	33.33	5	50.00	8	34.78
40-50	6	66.67	5	50.00	10	43.48
60-65	-	-	-	-	5	21.74
Experiences of work in DHS						
2-3 years	4	44.44	2	20.00	10	43.06
4-5	5	55.56	6	60.00	13	56.94
6-8	-	-	2	20.00	-	-

and 10 village healthcare volunteers. Characteristics of all participants are shown in [Table 1](#).

Leaders' perspectives on preventing and resolving issues of overweight and obesity of the population in their communities

The results of this study revealed that the participants viewed that driving district-level health system management successfully through the startup project: "We all Far Away from Obesity" which used the DHS concept, consisting of three major themes: Creating clear and equal understanding, having precious community capital, and integrating effective incentives. Details are as follows:

Theme 1: Creating clear and equal understanding

In the theme of creating clear and equal understanding, the participants explained that an effective DHS management process is necessary to ensure that everyone in the district has understanding of the problem and methods of solving the problem clearly and equally. The participants referred to creating clear and equal understanding of citizens in the district through continuous meetings and giving enough information to the public.

"The community meeting every month between the DHS startup team and the leader from every community was very helpful because we could know the progress and we could inform them of our plans to manage this project correctly. We also let them tell us what they would like us to help them, and so on. So, I believe that everyone in the meeting knows the problems of others and knew the solving methods of each area equally and they applied them to their areas." (FGD2, public health officer, DHS startup team)

"I think giving the information about methods and results of the project every three months to people in the community has really worked because this could affect people to be willing to cooperate in solving health problems at the district level in various ways." (FGD1, Sub-district headman, DHB)

"We gave them knowledge about causes, impacts, prevention, and reducing of overweight, obesity, HT, and DM through all kinds of communication method as we could, such as community meetings, billboards or announcements, on line application, our Facebook page, or public address system (PA system) so that everyone and every age may gain this knowledge. When they knew, they were concerned with the issue and joined every activity of the project." (FGD2, registered nurse1, DHS startup)

"...Complete understanding from every team and every person in the district about the real health problem and what our district should change is a very important point. This can help us to drive the project to the direct way easily...." (FGD4, village headman, VHSM group)

Theme 2: Having precious community capital

Most participants explained successful management of DHS in terms of having precious community capital. Precious community capital in this district consists of social capital, human capital and physical capital. Half of the participants explained social capital in this area as cooperation of people and other organizations in the district and strong networks in the district.

"We are very lucky because most people and every organization in this district have cooperated in every activity very well, including this project." (FGD1, Deputy District Chief, DHB)

"Luckily, we have strong networks. Every sector, such as schools, temples, and other community organizations, has worked with us continuously and actively so far.... If we don't have this connection, the project could not be successful." (FGD2, Public health technical officer2, DHS startup team)

Almost all participants expressed that important human capital in this district included effective leaders and community health volunteers.

"I think we were very lucky to have good community leaders. They were very knowledgeable members... They knew very well about what, when and where to do and whom to do with." (FGD2, Physician1, DHS startup team)

"Every community leader and most community health volunteers are very helpful for operating the project continuously and effectively. They knew how to get people involved in the project continuously. If we didn't have them, the project could not be successful for sure." (FGD1, Community developer, DHB)

In addition, almost half of the participants clarified physical capital in terms of a model community farm and healthy food markets as follows:

"I'm very proud to say that we have already had a model community farm for organic farming. ... Many people from both in the district and other districts came to visit it continuously." "... The farm could encourage people to be aware of eating healthy foods to prevent many diseases and obesity." (FGD3, village headman3, VHSM)

"We also have health food markets to sell many healthy foods and they are accepted by people across the district very well." (FGD1, Sub-district headman, DHB)

Theme 3: Integrating effective incentives

There were a variety of effective incentives that the participants used to support the "We Far Away from Obesity" project, including their favorite sports, competition and rewards, and interesting campaigning. Most participants viewed that providing various types of sports for citizens in each sub-district was a good incentive to encourage people to do exercise based on their preference. There were a lot of exercises, including aerobic dance, Thai dance, football, jogging, cycling, petanque and bar slope dance. They could select a sport they liked.

"We tried to encourage people in our area to control weight by setting up exercising clubs such as a petanque club and a cycling club for everyone. However, some elderly people asked for other exercises.... Finally, we set up a Thai dance club and bar slope dance as well. They work very well...All clubs haven't been closed yet." (FGD3, village headman5, VHSM)

"The aerobics club always opened every evening. This sport could attract people all ages, especially adults, very well because we usually turned on fun music and people in this sub-district like music very much... So, almost everyone joined the sport they like." (FGD4, village health volunteer2, VHSM)

Many participants shared their experiences of success, driving the project through providing competitions and rewards.

"Our district had a sport competition among a sub-district. I think this method really worked. People in each sub-district tried to practice for winning the competition and receiving rewards. I saw they played football and did aerobic dance and Thai dance almost every day before the competition." (FGD1, the Deputy District Chief, DHB)

"We announced that we would give rewards to whoever can lose weight from exercising or eating. You know? Afterwards, many people were interested in this

project. They followed the announcement and many people got rewards when they lost weight.” (FGD1, Chief executive of the Sub-district Administrative Organization, DHB)

“Our sub-district used a competition through a project of growing vegetables by themselves. We ran a vegetable gardening competition. Almost every house had planted. You know? After that, most of them cooked it or someone sold it in a health food market in our district.” (FGD3, village headman, VHSM)

In addition, many participants focused on interesting campaigns, for instance, growing vegetables, cooking foods, monthly physical examination and waist measurement.

“We had a monthly waist and blood pressure measurement project for everyone in our district. This method could monitor people’s health very well...Many citizens told me that waist and blood pressure measurements were good indicators to control their weight and health.” (FGD2, registered nurse1, DHS startup team)

“We also had a continuous campaign to encourage our citizens to grow vegetables, cook their own foods, and reduce eating salty, fatty and sweet foods. Ones who joined this campaign said that they could control their weight and health very well.” (FGD2, nutritionist, DHS startup team)

Discussions

Healthcare system management in the district of this study was an operation with the participation of all sectors based on major health issues of people in the community. The DHB team, the DHS startup team and the Village Health System manager team of this district focused on the importance of solving district health problems through creating clear and equal understanding of the problem and operation, using precious community capital, and integrating effective incentives. Clear and equal understanding regarding health-related issues might be able to promote problem perceptions in the same way and raise self-awareness to all people in the district. In addition, clear and equal understanding about methods to solve the problems might encourage people to be willing to participate in the project for improving their quality of life and health problems. The results of this study are consistent with a study by Koumpai (2016), which found that clear understanding could encourage participation of people in the community. This is also consistent with a study by Wanaratwichit et al. (2018), which indicated that

understanding the problem and the project is an important mechanism to drive a project within the DHS and can be a factor to help the project to be successful. Moreover, the present study is consistent with a study by Nilsen et al. (2020) and Thojampa et al. (2023), who found that clear communication could increase the chance of successful changes. The result of the study which is similar to several previous studies can demonstrate that clear and equal understanding from populations and every sector in the district is an important method to prevent or reduce overweight and obesity. In addition, this method might be able to be applied to manage NCDs. Therefore, it is important in creating understanding through continuous meetings and giving appropriate and complete information with various forms of communication, such as online application, community bulletin board, PA system, and meetings, with people and organizations in the district to have them understand and improve the ability to practice easily (Indharatana, 2014), leading to health improvement.

In addition, the leaders at all levels of this study indicated that community capital, including human capital, social capital and physical capital, plays an important role in driving the project success. Strong leaders and community health volunteers, popular model community farms, well-established health food markets, and good networks at all levels fostered participation of people in the community in all sectors. When people in the district cooperated in the project, they managed their health problems by themselves. Finally, the community health problems could be continuously and directly solved, leading to improving quality of life and sustainable health development. The findings of this study are consistent with some previous studies (Dhammasaccakarn et al, 2022; Nithisirawat, 2020; Sanarmkate & Kabjan, 2021; Supabhato et al., 2020) which concluded that the community capital influences self-management for sustainable development of a local community. The present research study is also consistent with a study by Wanaratwichit et al. (2018) which reported that using community capital is an important strategy because it is familiar to people in the community. When applied, it can be easily practiced in normal life.

Another important key to drive the project successfully is that participants referred to providing various effective incentives. This theme means providing a variety of incentives based on one’s satisfaction. The participants explained incentives as sports, competitions and rewards, and campaigning about foods and monthly waist measurement in each

sub-district. The findings of the study are consistent with previous incentives studies revealed that incentives, such as sports, competitions, rewards, and campaigning, could motivate people's actions (DiMenichi & Tricomi, 2015; Giles et al., 2014; Hafner et al., 2020; Plangger et al., 2022; Sibanda et al., 2017). An incentive is a mechanism that motivates a person to act or influences the decision of each person (Bradley et al., 2018). Therefore, integrating favorite incentives into any activities of the "We all Far Away from Obesity" project might be a power to encourage people in the district of this study to participate in any activities to change their behavior and lead to better health. Various incentives based on ones' satisfaction are a very useful motivation (Bradley et al., 2018). Therefore, providing effective incentives should be of concern about types and satisfaction of incentives. The participants in the study provided various incentives based on their citizens' wants.

Limitations

Although this study's findings provide waypoints of how to drive DHS through a project successfully, the study explored perspectives from only leaders who managed the project, not people in the district. This is a limitation of this study. Therefore, further studies should consider the perspectives of people in the district about the operation and results of the project.

Implications

Driving the DHS under one project based on creating clear and equal understanding, having precious community capital, and integrating effective incentives is a strategy that should be applied to prevent or control overweight and obesity in other areas where rates of overweight and obesity remain challenging. In addition, it should be possible to apply the strategy to manage chronic non-communicable diseases or diseases caused by health behavior. This strategy will help improve health lifestyles and address overweight, obesity, related non-communicable diseases effectively and sustainably.

Conclusion

The results of this study have shown valuable methods to drive the DHS under one project successfully, based on perspectives of leaders, consisting of creating clear and equal understanding, having precious community capital, and integrating effective incentives to improve health problems of

people in the district. The findings of this study offer important methods to manage health system successfully to healthcare leaders and community leaders in other communities having health problems, especially overweight or obese, to apply these methods to solve their citizens' health problems continuously and effectively, leading to developing the sustainability of public healthcare at the district level.

Conflict of Interest Statement

No conflict of interest has been declared by the authors.

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