Multidisciplinary Inter-Organizational Collaboration of Network: A Qualitative Study

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Abstract

Health problems of people in communities become more complicated, partly due to social changes. Addressing these problems necessitates the collaboration between local organizations. The Sweet Enough network in the district level operates and takes advantage of the collaboration of health, public, and private sectors to promote health of children and people in the districts. Consequently, this study aims to understand the collaboration of local networks that showed the best practices. This study adopts qualitative research method by applying semi-structure interview. Purposive sample and snowball sampling approach to recruit the participants. The data was collected from 19 participants from Bung Khla, Mae Chai, Lum Plai mat and Ao luek Sweet Enough networks. The results revealed that the factors including people's characteristics, flexibility of the organization, and public participation play an essential role in the success of the Sweet Enough network operation in the district level.

Keywords: Inter-organizational collaboration, Sweet Enough Network, Qualitative Study

Introduction

One health concept emphasises team building and collaboration among multidisciplinary. Because it is difficult to be omniscient and set everything by yourself or only one discipline. Collaboration has 3 degrees: international, national, and local level (Calistri et al., 2013). At national level, ThaiHealth intends to support networks that have been working on public health and to promote the interorganizational collaboration. ThaiHealth funded various health promotion networks to fight against risk factors through social marketing, policy making, and civil society movement. Sweet Enough network was started in 2003. Initially, the central network consisted of multidisciplinary committees including pediatricians, dentists, and nutritionists. The mission was to create public awareness on Thai sugar consumption and push for sugary food regulation. Over the past decade, Sweet Enough Network has created the environment supporting good health among children and health. The empirical works of the central network include the bans of sugar-added infant food products or soft drinks in state

schools. The Network, in collaboration with other agencies, also pushed for sugar-sweetened beverage taxes. The network also advocates health literacy or food literacy by reforming policies.

There are local Sweet Enough network in each district around Thailand works separately and collaborate with disciplines in their province or district. In 2020, there are 25 provinces which are still active. It is worth to state however that only four district networks were successful in working in collaboration with the networks in the district level without the collaboration with the networks in the provincial level. The four district networks include 1) Bung Kla district, Bueng Kan province, 2) Mae Chai district, Phayao province, 3) Lam Plai Mat district, Buriram province, and 4) Ao Luek district, Krabi province. They differently operated with the collaboration of the stakeholders in both government and private sectors within the districts. These four networks have participated more than ten years and showed interesting results. Each network utilized strategies to collaborate and recruit other organizations independently. The collaborative process that causes the success individually depends on leaders and colleagues of each network. Therefore, this research aims to understand the collaboration of local networks that showed the best practices. We understood narrowly the complexity of the collaboration between various stakeholders who participated in 4 local Sweet Enough networks.

Methods

This study adopted the qualitative approach to draw the lesson learnt regarding the collaboration between organizations which has achieved notable success in participating in the Sweet Enough network. A multi-method approach included documentary review, observation and interview in order to collect the necessary data (Eisenhardt, 1989).

Participants and recruitment

We used purposive sampling method in this research to select the district area. Four district networks including Mae Chai, Ao Luek, Lam Plai Mat, and Bung Khla were selected. These above-mentioned networks have taken part in and implemented Sweet Enough with efficiency, working constantly over the past 10 years. It is worth noting however that they received less support of their respective provincial public health offices. The researcher contacted purposely with the head of the district networks including three dentists from Mae Chai, Ao Luek, Lam Plai Mat and a dental assistant from Bung Khla. After that, other health providers, local organization officers and private sectors participating in the networks were selected with the snowball sampling technique which was referred by the head of the district networks. The heads indicated participants who activated in successful networks Each networks work independently, therefore, these referred officers and participants are not as same as in different networks.

Interview structure

The participants were informed of the study's purposes and asked for consents prior to the collection of the data. Formulate semi-structured questions relating to the collaboration between the organizations. The questions covered five factors including external environment, organization characteristics, people characteristics, instruments of inter-organizational collaboration, and relational factors (KOzUCH & SIENKIEWICZ-MALYJUREK, 2016). Interview, collect information, documents and observe until an idea of the collaboration in the networks took shape. Take part in processes of ongoing operation. The participants were informed of the study's purposes and asked for consents prior to the collection of the data. The interviews were led by 2 members, approximately 60 minute and were recorded and transcribed.

Analysis

According to the thematic analysis (Gioia, Corley, & Hamilton, 2012), we first considered collected data from interviews, observations and documents that were conformed to the framework. Then, the relevant topics that arose from the data were listed. After that, the cognitive mapping was applied to each point of view (Charmaz,2006). The code indicators can be in forms of words, fragments of sentence, or sentences which link to factors relating to inter-organizational collaboration.

In addition, all code indicators are categorized and subcategorized to be compared afterward with theoretical framework (kozuch & sienkiewicz-malyjurek, 2016). As for the analytical process, the structure of inter-organization collaboration was clearly differentiated. According to the latest literature, effective inter-organization collaboration consists of five main factors including external environment, organization characteristics, people characteristics, instruments of inter-organizational collaboration, and relational factors.

Moreover, "axial coding" was applied to identify the relationships between the elements of the inter-organizational collaboration configuration of the founders and staff taking role in creating the network. This can be used to establish second-order themes (Gioia et al., 2012) and data can be analyzed to gain further information on specific structure of collaboration.

Results

19 Participants included 3 dentists, a dental assistant, a doctor, a nurse, a public health officer, 2 teachers of child development centers, a director of child development center, a school teacher, 4 director, 3 village health volunteers, a chief of a subdistrict administrative organization.

External Environment

The development of the government policy was firstly formulated to respond to the health promotion in the national level. After that, the policy was introduced and implemented in related ministries and organizations before transmitting through local organizations.

"Primary care cluster (PCC) is assigned each district building a district health board that has the district chief being head of the board" (B1, 19 Sep 18)

The Ministry of Public Health is one of the organizations who has been supporting the operation of Sweet Enough network. The policy seems to vary each year considering the indicators specified in the Performance Agreement. Those indicators include NCD morbidity or mortality, and young children without caries for example. Health promoting school policy also allowed the principals of the schools that had been awarded Diamond Health Promoting School to request for the promotion. However, some government policies including the reduction of health promotion budget or the absence of clarity of budget spending could penalize the operation of the network. It is interesting to mention that social problems relating to health can be instigated by the development and the transformation of communities. This urbanization has brought together facilities that accelerated health deterioration, for example, more coffee shops, more fast food outlets. In addition, more convenient, accessible transportation facilitates the access to food and beverage.

The culture of each community is also worth consideration because of the diversity. The observation has been made during the field trip. Muslim people in the south of Thailand live in a big family with many children whereas people in the northeast travel to Bangkok for work (A2, 6 Sep 18). Consequently, the parents of both regions do not have enough time taking care of their children thoroughly. This reality may cause health problems among children.

They often work in their hometown during the last years of their career. Some of them prefer returning to their hometown after studying and working in big cities such as Bangkok to develop their community and share knowledge with the villagers. (A2, 6 Sep 18), (A4, 6 Sep 18), (B2, 19 Sep 18), (B4, 20 Sep 18), (B6, 20 Sep 18) Economic situation also has an impact on communities and the operation of the network. In the past years, the economy of the south and northeast of Thailand was "healthy"; the price of rubber was highly good before falling down sharply in the last five years. During the period of prosper economy, some parents did not have time to take care of their children. They gave the money with which the children bought sweet candies leading to a negative impact on their health.

"At that moment, the price of the natural rubber accounted for 100 bath per kilo gaum. Ouch! They bought a lot of sneak and mild for their child and then the child got cavities."

Organization Characteristics

The Sweet Enough network has specified necessary organization characteristics to recruit the organizations corresponding to the objective of the network. For example, a school restricts the consumption of sweets or snacks with the issuance of the ban on snacks that have a negative impact on health. The agreement of the policy was concluded with collaboration inside the network before the implementation in other schools participated in the network. Apart from the specification of the organization characteristics, each organization usually applies the principle or the concept to manipulate the behaviors of the children. For example, Introduction media (tale) that convinces the children to brush their teeth after lun It is undeniably clear that each organization has a different corporate culture. However, such corporate culture is more informal than formal. The 'informal' relationships in the network were built on the respect of each other. Despite some differences, for example, the hierarchical relationship is less present between small schools and small child development centers than between some schools and hospitals.

Leaders in small networks usually manage and coordinate the networks in the district level, know everyone in the district because they are respected, trusted, and reachable. The leaders of the networks interviewed in this research possess the knowledge and the understanding about health promotion and are acquainted with the communities. They also master interpersonal and communication skills due to the fact that they have lived in the communities for a long time. In addition, they can see the whole picture before putting all puzzles in place. ch or the ban on sweets, and menus for health of a coffee shop. "I need to see the whole picture. I direct and connect the organizations. Therefore, I need to know the roles of everyone who I am related to. After that, I tell them which are their roles in this picture." (B6, 20 Sep 18)

Most leaders of Sweet Enough networks are responsible for coordinating and persuading related organizations to join the networks as well as facilitating the operation as needed. For example, they organize knowledge sharing sessions between organizations in the networks and presentation of best practice sessions.

"Using the result of a study presented to the director of the Primary Educational Service Area. I ask for a bit of time in a meeting to sell ideas." (B6, 20 Sep 18)

"Furthermore, the networks provide the opportunity to those who are interested to join, observe, attend training and knowledge sharing sessions. They can establish the relationship and gain understanding of the objectives of the network. "We have a stage to share and learn by inviting every school not only schools in the network but also ones out of the network." (D5, 26 Oct 18)

The budget of the network comes from four sources.

1. ThaiHealth Promotion Foundation allocates the supporting annual budget of the Sweet Enough network to provincial and district level networks;

2. The budget that is allocated to public health organizations to promote health including Dental Fund or Health Promotion Fund;

3. In some cases, the budget comes from the organizations in the networks to support the operations including student training projects or knowledge management between teachers of child development centers. This part of the budget can be brought out from the budgets of the schools, the municipalities, the subdistrict administrative organizations and personal budget. As for the operating time, it depends on the occasion and the appropriateness. The networks operate in official hours. Each organization should be aware of the significance and the concrete outcomes prior to involving the staff in the networks. After hours operating time can sometimes be observed. The members of the networks usually devote their personal time for the benefit of the networks. Accordingly, time is considered as one of the precious resources of the networks.

"It is almost impossible to contact others in working time. Then I use non working time to contact privately such as Facebook and Line." (B1, 19 Sep 18)

" It is commonly said that health promotion is a complicated operation in such a way that health organizations cannot handle the problems alone. It is thus necessary to involve authorized organizations to give a helping hand. For example, the network persuades the municipality to rearrange coffee shops. However, the hierarchical system of operation is implemented due to easier control. First, the primary care units invite shop owners to a meeting, so there is no one coming to the meeting. Otherwise, the owners come when the subdistrict administrative organization that has the authority invites, then, they come." (B6, 20 Sep 18)

As for the collaboration between members in the network, the members operate according to their expertise under the semi- formal coordination, for example, between hospitals, schools, and government agencies. The grouping of the networks is based on volunteering or agreement concerning the health of the communities. Several professions including dentists, dental health officers, dentist assistants, doctors, nurses, school principals, teachers, mayors, vice mayors, and entrepreneurs are represented in the groups and share the benefits.

The technology was applied to constitute the platform for communication and coordination mainly even though the lack of equipment, tools, and data management system was observed. This is because most of the operations were carried out in the communities, therefore the emphasis was put on the on-site operation that necessitated the flexibility, the adjustment to the environment, and the people in the communities.

The modification of the objective of the network is made each year without ignoring the previous ones. Such modification concerns the topic or the main objective in which the network is interested. The networks in the district level will carry out their works continuously according to the new objective as well as the previous ones. (D5, 26 Oct 18) The on-site

operation where people can meet and communicate facilitates the modification of the objective. New members and organizations may also participate in working with new topics.

People Characteristics

Leaders and key persons in the network usually have experience of the collaboration with bigger networks and hospitals, whereas the others in the network work and live in the areas to help and coordinate. Most of the local members of the network are teachers and nurses, so they are known in their communities.

The conflict between members of the network is of course inevitable. Therefore, every network tries to make sure that the conflict occurs to a lesser extent and avoid the situations leading to such conflict. One of the examples concerns years of service. Members who have been working in the network for a long time may feel tired or think that they are not the right person for the duties. In this case, it is necessary to modify and adjust according to the situations. Those members can withdraw from the network and rejoin when they feel ready. Leaders of each network apply a friendly and compromising approach for every organization to handle and prevent the conflict.

Members in an individual organization communicate informally to prepare the plans. However, they adopt more formal communication with their superiors. The superiors must issue official documents as written proof of the operation to follow. During the survey, it is interesting to observe that the crucial factor concerning the communication is the direct and personal discussion about the projects with the superiors. The topics concern the benefits of having good health for everyone as well as the advantage that the organization will gain.

The interpersonal relationship of the members in each organization relies on friendliness, the respect, the sense of the family. Knowledge and information exchange are constantly carried out to improve the operation, strengthen the network, and enhance the efficiency to reach the common objectives. On-site visits are often organized to create the trust. The members know exactly their duties and responsibilities and develop mutual understanding.

Instruments of inter-organizational collaboration

Formal and informal communications are both applied inside the networks depending on the situations. Formal communication is usually preferred for official documents including invitation letters. While informal communication is adopted for on-site operation where it is necessary to deal with the communities. Mobile phones as well as phone applications are employed as communication instruments to make appointments or meetings in the area, training seminars, and learning centers. One of the aspects of the operation is that the knowledge is shared in the group with a view to identify the problems and the best solutions. The operation is under the supervision of the leaders who guide, coordinate, and facilitate. There is a determination to attract business operators including shops or coffee shops to join

the network by providing them the information and the support leading to the augmentation of the value of their products. In exchange, the business operators agree to support health promotion, reduce sugar and high energy snacks. The network asks for the collaboration from the shops to place snacks on shelves that are hard for the children to reach, or not to sell these products to the schools. The business operators are invited to attend the meetings through local administrative organizations to be informed of the objectives of the network concerning health. Some business operators may be approached directly in their outlets. It is interesting to mention that the operation of the networks is not limited by time. That is to say that it is not necessary to get a move on since there is no competition in the networks. Members feel independent and work without pressure nor stress.I feel good to collaborate with the network. There is no pressure, no competition. We have the same goal as students." (D1, 25 Oct 18)

The information sharing in the networks is conducted through regular training sessions. The information is also shared via chat groups in the application LINE. In addition, contests and work presentations are organized to exchange the knowledge in networks. In the Sweet Enough network, the knowledge is transmitted by the network leaders. This knowledge is acquired through the national annual meeting of the network, lecturers of the faculty of dentistry, and other sources, as well as knowledge sharing sessions that are regularly held each year.

However, error management in an individual organization can also be observed. The leaders of the networks mentioned the problem of the posting translating in the assignment of a task to the wrong person. For example, the village health volunteer is assigned to effectuate the dental examination and write the reports in English; the assignment that cannot be accomplished. However, this problem can definitely be resolved by assigning the appropriate task to the right person.

Relational factors

Another factor to take in account is the inter-organizational relationship in the network. At the district level, most of the members were born and have been living in the areas for a long time so that everyone knows everyone. Therefore, the inter-organizational relationship is often based on the brotherhood. They often share the same idea of promoting health. Apart from regular meetings of the members, formal and informal, the leaders of the networks frequently visit the villages leading to greater "familiarity and cordiality. Teachers in this child development center are this subdistrict citizen, children as their own...in the past I talked to parents, but now we understand each others with the same heart (goal)." (C1, 3 Oct 18)

It is not difficult to affirm that the field trip leads to constructive conversation to identify the problems and come up with the solutions afterward. The objective is to develop and implement the policy supporting the projects of the networks present in the areas.

Concerning the operation, the network expects to build the collaboration from every organization to strengthen the communities as well as to deepen the understanding and the knowledge of correct and appropriate health and self-hygiene. It is true that some limitations can be found in some communities due to cultural differences. Some communities implement the knowledge easily, whereas some communities can partly or cannot implement it due to those limitations.

"Local administrative organizations take care of early childhood. Teachers, students, and parents understand, we are on the same page and are strong." (D5, 26 Oct 18)

"16 schools in the network must meet the standard. Other schools have not no standard at all, there is a part that may not meet the criteria, such as still having snacks at lunch. But children brush teeth every day, brushing their teeth before bed." (D5, 26 Oct 18)

The mission and the goals of Sweet Enough Network are communicated in the form of conversation and exchange. The objective is to raise awareness of the health of the children and the people in the areas. Then, the network points out that the mission can be integrated in daily work of each member and each organization.

"If it increases our duty, I won't get it." (B5, 20 Sep 18) After that, the network meeting is held to formulate missions of each organization. The meeting is conducted by leaders of the networks who propose the idea and the guidelines.

The interest and the collaboration of the members in an individual organization depends on each member, each leader or authorized person in that organization. Most members are already interested in collaboration in the network for social benefit even before joining the network. But they are not yet offered an opportunity to perform or apply their knowledge and skills. The Sweet Enough network supports them by providing the occasion to display their competency. The leaders and authorized persons in an individual organization perform a consultative role to establish and increase the collaboration and the interest. In addition, the leaders share knowledge, help, and make the members realize their important role in health promotion. For example, the increasing support from the school principal makes the members appreciate the value of their mission and devote their attention and interest in accomplishing their works. The professional diversity of the members in the networks should also be mentioned. The members who practice the same professional activity also demonstrate their own competence. However, they share the same academic proficiency since most of the members are doctors, nurses, teachers, and public health officers. This leads to the lack of the members with good communication skills that are needed in the field trip.

It is not exaggerated to assert that a good network consists of a professional diversity. The Sweet Enough network regroups diverse organizations including schools and their networks, local administrative organizations, child development centers, business operators, and public health organizations. These organizations are partly interdependent to increase the

efficiency. It is worth mentioning again that field works and regular communication establish trust and acceptance as well as build mutual understanding concerning the mission and the goals. The equity and the respect are also promoted in the collaboration, the coordination. Sometimes the policy may be modified, and the interest or priority may be shifted eventually leading to unaccomplished projects. Normally, the duration of a project is set to one year that is to say a project per year. However, if the people in the areas and the members of the networks are still interested in the projects that are considered as important, those projects will be carried out as ongoing projects.

The responsibility and the duty of an individual organization in the network are clearly and distinctly specified. For example, the hospitals and the child development centers are responsible for children's health. The primary care unit and the hospitals are assigned to modify the environment, for example, the restriction of soft drink selling at school bus stops. Officers are assigned to visit the villagers and organize training sessions. The shops are involved through the collaboration with the municipalities to implement the policy. The municipalities issue the policy, allocate the budget, and provide instruments to the networks.

The small networks and the organizations in Sweet Enough network can make decisions independently to carry out the projects and determine the method of the operation. The leaders mentioned in the interview that each network operates following its own method, there is no intervention from other networks. Sometimes they are aware of what the others do.

In conclusion, the operation of the networks is in the informal form. The emphasis is put on the satisfaction in working without pressure. The knowledge is often shared for the members to develop and implement. The network is formed by the people who share the same idea and objective. In addition, the conversation is preferred for decision making and mutual understanding within the networks.

Discussion

There are 3 points of this study that are similar with a contrast point of view to Barbara study (Kożuch & Sienkiewicz-Małyjurek, 2016) In the same way, a competent leader that effectively organized and communicated has a great influence on network interoperability. Social capital of a leader provides access to resources, including knowledge, human, funds and trusts. Second, the flexibility of inter-organizational collaboration strongly influences teamwork. Working without a time frame and rigid processes, the flexibility gives colleagues the freedom to think and operate.

Third, the broad of routine tasks of the network leader affects the border of the target groups that each network deals with. Dentist network leaders focus on general and board task on children student and general population. On the other hand, dental assistant who mainly

focus on children in child development centers tend to work assigned a particular task from her organization.

In contrast, Barbara study influence on close links between organizations but the study result shows all leaders have personal relationships with others in the network. Because the contexts of the case studies were not as same as Barbara. Thai culture is important, the relationship between individuals based on exchanging of benefits by taking as a recipient and giving as a donor. We will find that in Thai society we still used the term family such as brother, aunt with non-relatives as well. Moreover, people in the countryside have faith and respect for doctors. The doctor is a knowledgeable person, helping to recover from illness. Doctors who have good relationships with rural people make them trust and follow the doctors easily.

"Other centers have the mayor that does not support the budget, not like our center. I think this center opportunity makes us have anything, in spite of, we are a new center." (C1, 3 Oct 18)

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