The Intellectually Developed Model for Community Participatory Management of Child Care Centers during the COVID-19 Outbreak

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Abstract

The appropriate model was investigated for participatory management for the intellectual development of children in kindergarten during the COVID-19 outbreak in 1,590 municipal and subdistrict administration areas in Northeastern Thailand. The study was based on community participation, with the key elements being: 1) the child’s family; 2) the kindergarten; 3) organizations/agencies involved; and 4) childcare volunteers and small supportive groups providing childcare support. The driving mechanism to create the processes involved the development of a management model that included: 1) studying the situation; 2) observing the community; 3) presentation of the data; 4) planning to solve the problem; 5) designating responsibility; 6) monitoring work and evaluation; and 7) developing conclusions and evaluating performance. The elements of the model and driving mechanism in terms of measures/strategies and activities resulting from the model were similar except for the frequency, duration, and form of participatory development. The intellectual development model should further enhance basic childcare in Thailand that is focused on temples and schools. The model proved effective and appropriate in providing childcare support and management for protection against COVID-19 through participation.

Keywords: intellectual, children, protection, participation, kindergarten, COVID-19.

1. Introduction

There is a current outbreak of the coronavirus disease 2019 (COVID-19) that has spread globally. With the rapid increase in the overall number of infections, there has been a concomitant increase in the number of children with COVID-19 (UNAIDS, 2020; Cui et al., 2021). The impact of COVID-19 on children can be viewed in a number of different ways, including changes to their
education while staying home with the family, changes to the way they are supported by health services, as well as changes to their emotional health and wellbeing (Umakanthan et al., 2020; Erika Molteni et al., 2020). Management of COVID-19 is mainly by supportive therapy along with mechanical support; nonetheless, the COVID-19 pandemic has upended the lives of children and their families around the world. UNICEF is working with health experts to promote facts over fear, providing trustworthy guidance and answering some of the questions that families might have (Li et al., 2020; Ludvigsson et al., 2020). Children and young people are experiencing the impact of restricted ventilation in severe cases. Preventive strategies form the major role in reducing the public spread of the virus, along with successful disease isolation and community containment. (UNICEF, 2020; UNICEF, 2014) This crisis has exposed the many inadequacies and inequities in our education systems—from access to the broadband and computers needed for online education to the supportive environment needed to focus on learning and the misalignment between resources and needs (OECD, 2020). Community participation is essential in the collective response to COVID-19, from compliance with lockdown to the steps that need to be taken as countries ease restrictions, to community support through volunteering. Communities clearly want to help (UNICEF, 2021; Public Health England, 2020).

In modern Thai society, parents choose to raise children themselves or search for a professional to act on their behalf. Those with experience in childcare, such as the child’s grandparents, can help lighten the load and provide much needed childcare support for parents. Thai society has changed from an agricultural society to an industrial one. Members of the family of working age tend to spend more time away from home in the pursuit of income to provide for their spouse and maintain their lifestyle (WHO, 2015; UNITED, 2016). This major change in childcare means that children may be less cared for and not always receive close attention. The alternatives of finding professional childcare support other than grandparents include child day care centers and centers located within their community (The World Bank Group, 2018; WHO, 2018). These local centers which may be operated under private or government administration are increasingly in demand and it is important that they all cover childcare activities in 6 areas: 1) promote good health; 2) promote child development; 3) provide safe food; 4) have a clean and safe environment; 5) be run by qualified childcare staff; and 6) involve participation by parents, community organizations, local government and related agencies (Charuek, Yutthasat, 2005). Participation is the foundation for all stages of development, especially in communities where participation will help community members to identify problems and offer appropriate guidance and solutions. Participation will also bring about joint operational decisions and evaluation and mutual benefits and successes (Fischer et al., 2015). Consequently, community participation is an important process that will help develop good management in child development centers. The success of childcare centers depends on the participation of all parties involved, particularly the participation of the parents that are directly involved. However, the current joint activities of many childcare centers in Thailand continue to experience problems with participation (Phitthaya, 2007; Phakdeekul et al., 2011; Nueakhumung et al., 2020). Many parents will attend activities, but without much dedicated interest in cooperating and creating efficient solutions. Many parents simply lack the necessary skills (Barry, Nigel, 2010). The important aspects of achieving participation are motivation, good staff, volunteer management, and good communication between childcare staff and the community (Suraiya et al., 2003; Phakdeekul, Kedthongma, 2019). Therefore, this article aimed to explore community participatory management for the intellectual development of children in kindergarten during the COVID-19 outbreak and factors related to the level of Disease Free Kindergarten (DFK) in Northeastern Thailand.

2. Materials and methods

This research involved participation action research that studied kindergartens that had a model of management already in place and centers under municipal and sub-district administration in Northeastern Thailand. In total, there are 1,590 subdistricts (n = 1,590) in districts in Northeastern provinces. The research was conducted from February 2020 to October 2021. The collected quality data was gathered by document analysis and in-depth interviews with 54 key informants, such as parents, monks involved with a local kindergarten, managers of local administration, public health officials, community leaders, and children within the community. The research tools were a questionnaire created by the researcher, combined with joint
development tools from the focus group. Data analysis was performed utilizing descriptive statistics (frequency, percentage and standard deviation), inferential statistical comparisons with variables related to child intellectual development, such as the chi-square statistic and class differences were compared using the odds ratio and the 95% confidence interval of the odds ratio, as well as content analysis for the explained qualitative data.

**Ethics**
This study was conducted in accordance with the Declaration of Helsinki. The study protocol was approved by the Sakon Nakhon Provincial Public Health Office (SKN REC 2019-021).

### 3. Results

#### 3.1 Differences in Community Participatory Management for Intellectual Development of Children in Kindergarten

All the centers chosen for the study had a range of physical, biological, religious, social, cultural, traditional, economic, and environmental characteristics of rural Thai municipalities which could be considered as semi-rural towns. The first rural childcare center was operated by locals at the temple for children from villages, with a ratio of childcare staff to children of 1:19.

The second rural center was a kindergarten at the subdistrict administrative organization (SAO) level that provides services for children from villages in the area, with a ratio of childcare staff to children of 1:20.

The remaining two centers were operated by: 1) the municipal administration (MA) for a kindergarten that received children from villages, with a ratio of childcare staff to children of 1:12; and 2) a childcare center in a town municipality (TM), which only received children from within the community and had a ratio of 1:13. All these centers faced the same problem of the lack of community participation, a lack of quality service, and the managers of the local administrations rarely provided the opportunity for the community to participate in management and development.

The childcare centers at SAO and MA are located in the same geographic context and share similarities in their original management models. The study and development of an improved model implementing community participation included the factors of: 1) the parent; 2) childcare staff; 3) local municipality management and board members of the local municipality; and 4) administrators and staff at the center. The working group consisted of 30–36 individuals working jointly to create a systematic model which was finalized into processes: 1) to inform the purpose of developing the model; 2) to identify key individuals to carry out the tasks; 3) to divide the work into groups; 4) to specify the processes and proceedings of the team; and 5) to report the end results.

#### 3.2 Organizations and Groups that Played Important Roles in the Development of Children and Childcare Centers According to the Model

**Temple:** Childcare centers that are operated by the municipality are located in temples and monastery within the community. The centers are ministered by the abbot who has the support of the community and he performs as the committee chairman. Within the center, there are also Buddhist priests and novices engaged in supportive activities who provide services such as being narrators for various topics to teach the children. They also help to gather funds and motivate others to donate to the center. This is in contrast to centers located at the subdistrict level, where the centers are not located in temples and there is minimal participation on behalf of the clergy in activities to support childcare centers.

**Municipal, Subdistrict administration and committee members:** Kindergartens that are operated by the municipal or subdistrict administration share similarities as activities are formal and informal regarding the involvement of committee members and staff at events. However, formal invitation letters had to be provided to invite the chairman of the committee to get participation. Kindergartens in municipal areas receive very little budgetary support, while the centers at the subdistrict level did not receive any budget at all.

**Community Health Centers:** The management of kindergartens at both the municipal and subdistrict levels in the past were similar because both centers are governed by the same community health center. However, the frequency and number of staff at municipality centers is much more than those at subdistrict locations because the municipal childcare centers are located near many public schools. The municipal kindergarten committee and organizational structure
includes health teachers and teachers who voluntarily participate in the center’s activities and operation. There are at least 4 teachers involved in municipal centers, while subdistrict centers only have 1 teacher. Nonetheless, the subdistrict administration centers did have an advantage as coordination was much easier and less formal. Both centers have volunteers willing to participate in the operation and activities. However, municipal childcare centers have more volunteers than subdistrict centers.

### 3.3 Activities
Child intellectual development promoted through activities such as food and nutrition for children and environmental development were similar to each other; however, the centers operated by the municipality had more goals and sub-activities. The overall techniques used by all centers were similar in their utilization of training, demonstration, practice sessions, credibility enhancement, creating incentives, and motivation to participate in the activities. Differences in these techniques were noticeable in centers operated by the municipality, where they use the technique of acknowledging and crediting the success to the managers and executives of the municipality. This technique is highly political and is considered political support but is accepted by the overall community. This technique has resulted in good cooperation between groups, adequate funding for organizing meetings, but can involve training that is sometimes in contrast with infrastructure budget and is not always reliable. This is different for kindergartens operated by local administrations. When denied funding, subdistrict centers will go directly to their Member of the House of Representatives to seek funds. All centers perform their duties well when it comes to achieving the objectives set and the efficient use of resources was very appropriate.

Participation according to the model of community participatory management for intellectual development of children in kindergarten during the COVID-19 outbreak was obtained through hard work. The success required many elements which stimulated or propelled individuals to participate in the development. In some cases, this inspiration came from groups or from a technical process.

Many factors came from individuals such as: repeated stories about “Doctors confirming the cause of a 5-year-old child being diagnosed with kidney disease came from consuming too many soft drinks and MaMa noodles since 2 years old”. These types of stories are techniques referred to as “urban legends” or rumors which were utilized by the childcare development team to reiterate the dangers of harmful junk food. The rumors influenced parents and guardians to be aware of the problems and to promote the benefits of consuming healthy food substances for children.

The competitive situation of each organization currently focused on developing the potential to be accepted by society. This has affected the management of each organization to be aware and to compete actively. The development created inspiration for communities within the municipality to promote their childcare centers to receive awards and acknowledgement. This competitive nature was evident in centers that knew they were still in the development phase but chose to compete anyway with the powerful sense of the development and unity that it brought to their community members. The feeling of participation, to continue with further development until they could achieve their goal and receive awards for their kindergarten mobilized a partnership network from the subdistrict, district, and provincial levels to unite and develop the municipality.

The prestige of Buddhist monks is an important force of faith that can strongly motivate parents and community members to participate in activities toward the development of the municipality’s kindergarten at a temple. There has always been a relationship between the temples and kindergartens before the municipality took over management and that bond still exist within the community. When mechanisms according to the new model were implemented, it encouraged the relationship and faith, which increased the energy of participation.

Acknowledging and honoring local administrative management, especially for kindergartens at the local municipality level is considered within the control and interest of the local community and municipality. Doing so benefits both sides, where the manager receives a reward through acknowledgement and gratitude which will help their political popularity, while the community receives budgetary support towards the development of their children.

Groups involved in the development of the model proposed that there should be mainstay or key individuals to lead the operation. Selecting key leaders should be by selecting individuals who are respected and have the community’s faith and trust. These key leaders were later recognized as childcare volunteers. This process was an important technique that the groups devised and the
volunteers performed their duties with great efficiency. Having childcare volunteers meant there was someone the community respects and trusts to carry out activities and events to benefit the children. The creations of childcare volunteers help promote automatic community participation.

The concept of participation was very useful in providing the opportunity for community members to be involved in the thinking process. Many individuals felt that the development was a good challenge for their talents. Many were motivated by the activities and events to participate. There was also the individual desire to be recognized. After they started to gather data and information regarding children and childcare, they were soon confronted with many negative findings. This negativity created an awareness and genuine concern for care of the health of the children and inspired them to look for solutions to the problems. There were many activities, ideas, and methods of participation, with many people involved and many groups or organizations in the development. All these elements created an enormous exchange of knowledge, created an appropriate model for the community, and was accepted by all within the community. The process was self-sufficient in creating a strong community that didn’t have to wait for outside help to solve their own problems.

However, this study included other important factors of development associated with the children’s family members, childcare staff, and directly related groups and networks, such as temples, schools, local administration, local community health centers, childcare volunteers, and local individuals who attended the activities and events. These elements that the development model was based on further enhanced the basics of ‘Bawon’ which was based primarily on temples and schools and matches the current status and is appropriate to address the many changes in modern Thai society.

### 3.4 Model Impact

This research focused on presenting the model results by considering the standards for a disease-free children center and the development criteria of children as determined by the Ministry of Public Health, Thailand. They consisted of the growth of oral health and food management, development and learning according to the age of children, internal and external environment management for kindergartens, prevention and control of communicable diseases, and participation of parents of local communities and related agencies. The results showed that 72 % of the kindergartens passed the standard (scores ≥ 80 %). In addition, the factors related to DFK for protection against COVID-19 were the children’s family, childcare staff and directly related groups and networks such as temples, schools, local administrations, local community health centers, childcare volunteers and local individuals were significant (p < 0.05), as shown in Table 1.

| Table 1. Factors Relating to Level of Disease Free Kindergarten (DFK) for Protection against COVID-19 (n = 1590) |
| --- | --- | --- | --- | --- |
| Factor | $x^2$ | OR | 95% CI | P-value |
| Children’s family | 17.85 | 3.643 | 1.520 - 18.06 | 0.0001** |
| Childcare staff | 5.008 | 1.627 | 1.062-2.495 | 0.02* |
| Directly related groups and networks | 2.424 | 1.643 | 1.087-3.079 | 0.04* |
| Local administrations | 3.697 | 1.519 | 1.099-2.330 | 0.05* |
| Local community health centers | 15.697 | 2.119 | 1.099-4.530 | 0.003* |
| Childcare volunteers and local individuals | 32.162 | 3.697 | 1.099-7.330 | 0.0001** |

*(p<0.05), **(p<0.0001)

### 4. Discussion

The reasons for differences is speculated to stem from the fact that municipalities have a larger governing area and a larger budget which was reported by in the study of the Bureau of Health Policy and Planning (Ministry of Public Health, 2021). That study showed clearly participation in all sectors which created role relationships that resulted in equal opportunity and equality. There was independence and not domination, with the process being continuous and...
related to its parts, with participation from all processes. This result was not consistent regarding context with other studies (Maria et al., 2004; Lee et al., 2014).

The intellectual development model of community participatory management for childcare centers is a model that has been developed to suit the context of the local community. Implementing the model created participation between networks of all the relevant sectors which encompassed temples and schools. This model is in compliance with his Rama IX the Great’s principle announced in 1981, entitled 'Bawon' meaning development, which originates from the stimulus to create development by focusing on the intricate social interactions between temples, schools, and households to cherish each other like in past Thai society. ‘Bawon’ is needed, so that the country will grow and prosper on foundations which will create a strong and stable country. (1st Army Area Civil Affairs Division, 2004; Brenner M. et al., 2016) However, the current study included other important factors of development, namely the children’s family, childcare staff and directly related groups and networks, such as temples, schools, local administrations, local community health centers, childcare volunteers, and local individuals who attended the activities and events. These elements that the development model was based on, further enhance the basics of 'Bawon' which are based primarily on temples and schools and also matches the current status and is appropriate to address the many changes in modern Thai society (Phakdeekul, Kedthongma, 2021).

5. Conclusion
The key elements of the model were: 1) the children’s family; 2) the kindergarten; 3) the organizations/agencies involved; 4) childcare volunteers and small supportive groups providing childcare support; 5) having a plan to solve problems; 5) designating responsibility; 6) monitoring work and evaluation; and 7) presenting conclusions and evaluation of performance. These elements are the drive mechanism in terms of measures/strategies and activities resulting from the model and were consistent among the sites studied. However, there were differences in the frequency, duration, and form of the participatory development. Centers operated by the municipality had more people participating in the activities, individuals participated more frequently and were involved for longer durations, and most of the development process and activities were more professional. Centers operated by the subdistrict/local administration were simple and easy going according to a rural lifestyle. In addition, these factors will affect the success of the management for intellectual development of children in kindergartens and for disease surveillance. The success is partly due to the unity of the people in the community and awareness of information through all channels, so that people can help each other in their combined surveillance of COVID 19.

6. Suggestions and Recommendations
The model of development that was created from this research was limited to the municipality and subdistrict levels and therefore should be tested at other levels, such as provincial and regional. Modifications and improvements due to the limitations of the geographical resources, such as key individuals, should be considered for what is appropriate in a specific area. Future developments and improvements should conform to system management and the childcare processes of kindergarten standards. Statistical analysis should be integrated into the model to compare the results before, between, and after testing the factors that are related. To complete the process, a handbook should be created compiling all the innovations that were identified in this study for use in supporting childcare centers throughout Thailand.

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