

## Outcomes of Home visit of Children with Cleft Lip and Palate in Khon Kaen Province

Somchit Maneeganondh BNS<sup>1</sup>, Daungkaew Rod-ong MSN<sup>1</sup>, Somchit Rongbudsri Med<sup>2</sup>,  
Aisrapap Theeyoung BSW<sup>3</sup>, Suteera Pradubwong MSN<sup>1</sup>, Niramol Patjanasoonorn MD<sup>2</sup>

<sup>1</sup> Division of Nursing, Srinagarind Hospital, Faculty of Medicine, Khon Kaen University, Khon Kaen, Thailand.

<sup>2</sup> Department of Psychiatry, Faculty of Medicine, Khon Kaen University, Khon Kaen, Thailand.

<sup>3</sup> Department of Social Work, Srinagarind Hospital, Faculty of Medicine, Khon Kaen University, Khon Kaen, Thailand

**Background:** The condition of cleft lip and palate [CLP] is considered a birth defect of the head and face and the incidence has been found to correlate with economic status. CLP is prevalent in the Northeast of Thailand, and long-term treatment has a significant impact on families' economy and lifestyle, especially their residence, which is a factor that affects development of CLP children. Therefore, Tawanchai Foundation, faculty of Medicine, Khon Kaen University, seeing the importance of the quality of life of CLP patients, conducted a home survey of children with CLP in Khon Kaen province, Thailand.

**Objective:** To survey and visit the homes of children with cleft lip and palate in Khon Kaen Province, Thailand.

**Materials and Methods:** This is a descriptive study conducted with a group of 0 to 12-year-old children with CLP from 20 families, living in Khon Kaen province, Thailand who received treatment from Srinagarind Hospital, faculty of Medicine, Khon Kaen University. The data was collected during the year 2017 from the families and was based on observation and semi-structured interviews that covered two aspects, namely, general baseline information of the children and a home survey. The opinions of the survey team toward the home and surrounding conditions were taken into account. The informants who provided information were the children's caregivers. Each interview lasted 30 minutes. The data obtained was analyzed quantitatively using percentages and qualitatively by means of content analysis.

**Results:** There were 10 male children and 10 female children (50% each) in the research sample. Most (15 children, 75%) had unilateral cleft lip and palate, and most (9 children, 40%) were primary school level. Eight cases (40%) had families with economic problems who had needed to borrow money. Average of members in each house is 5 members (7/20 families, 35%). The greatest number of members was 12 members (1/20 families, 5%), and type of families is extended families accounted for the majority of cases (17/20 families, 85%).

The survey concerning safety showed that there were 16 safe houses (80%) and 4 unsafe houses (20%). The 4 families with unsafe house need to further home visit and plan to improve their condition

**Conclusion:** The majority of CLP children in the present study were born into poor families. Their houses and surroundings were not safe for living. Community leaders should provide assistance to these children's families.

**Keywords:** Home visit, Cleft Lip and Palate, Children, Families

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Cleft lip and palate is a birth defect of the head, face, gum ridge, nose, and palate. To date, the cause of CLP has not been clearly identified, but it is

correlated to genetics and to environmental factors and may appear during the first quarter of pregnancy. In Thailand, CLP incidence is most prevalent in the Northeast<sup>(1)</sup>. The irregularity affects other organs and systems as well, including the face, oral cavity, teeth, respiratory tract, speech, and physical development. Long-term treatment for the condition impacts the family's economic and living status<sup>(2)</sup>. Most children

**Correspondence to:**

Patjanasoonorn N. Department of Psychiatry, Faculty of Medicine, Khon Kaen University, Khon Kaen 40002, Thailand.

**Phone & Fax:** +66-43-348384

**E-mail:** nirpat@kku.ac.th

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with CLP are from low-income families that earn less than 5,000 THB per month<sup>(3)</sup>. Each visit to the hospital adds cost in transportation and other expenses. The status of the child's family is an important factor that also affects the child's growth<sup>(2)</sup>. Tawanchai Foundation is an organization under faculty of medicine, Khon Kaen University that has support medical care for this group of children to address all dimensions, i.e., physical, mental, community, and social conditions, based on the WHO's 2010 CBG Model<sup>(4)</sup>. The purpose is that the growth of CLP children be taken into account in 5 categories, including their health, education, social aspects, lifestyle, and vitality, and that doing so will strengthen both the child and the family, resulting in a better quality of life. Thus, home visits to survey household conditions enable the visiting team to know the problems concerning each child and their community so that solutions will be sought. The goal is to ensure basic human rights among this group of children so that they will live in a safe society as well as other ordinary children<sup>(5)</sup>. After finish the visiting, we plan to going to renovation their home if necessary for children's safety.

## Objective

To survey and do home visit of children with cleft lip and palate in Khon Kaen Province, Thailand.

## Materials and Methods

This research is a qualitative and descriptive study performed on 0 to 12-year-old children with cleft lip and palate from 20 families selected by purposeful who living in Khon Kaen province, Thailand during year 2017. After the biomedical ethics committee of Khon Kaen university had been approved the research project (HE591110), data was collected through visiting by multidisciplinary team of Tawanchai foundation to the children's homes. Observation and semi-structured interviews were conducted to collect the information including general baseline data of the children and household environment results. Opinions from the survey team related to conditions of the house and its surroundings were taken into account. The children's caregivers acted as informants, giving interviews that lasted 30 minutes each. Quantitative data was calculated using percentage, while qualitative data was analyzed using content analysis.

## Results

There were 10 male children and 10 female children (50% each) in the research sample. Most (15

children, 75%) had unilateral cleft lip and palate, and most (9 children, 40%) were primary school level. Eight cases (40%) had families with economic problems who had needed to borrow money. Details of the baseline data are presented in Table 1.

The home visiting and the general data of the families of this study found that average of members in each house is 5 members (7/20 families, 35%). The greatest number of members was 12 members (1/20 families, 5%), and type of families is extended families accounted for the majority of cases (17/20 families, 85%).

The survey concerning safety showed that there were 16 safe houses (80%) and 4 unsafe houses (20%), as shown in Table 2. The 4 families with unsafe house need to further home visit and plan to improve their condition. Tawanchai foundation will report later.

## Discussion

The findings from this study on the unsafe conditions of some houses that risk attack from ill-willed people or animals provide empirical data in terms of house characteristics and needs for assistance. The findings are consistent with a study by Darawan Ausornwan et al 2011<sup>(6)</sup>, which concluded that home

**Table 1.** General baseline data of the children, classified by sex, age, diagnosis, education, and household income (n = 20)

Details	Number (cases)	Percentage
Sex		
Males	10	50
Females	10	50
Age		
0 to 5 years	10	50
6 to 12 years	10	50
Diagnosis		
Unilateral cleft lip and palate	15	75
Bilateral cleft lip and palate	5	25
Education		
Not going to school yet	6	30
Small child development center	1	5
Kindergarten	4	20
Primary school	9	45
Family income		
Sufficient with savings	5	25
Sufficient with no savings and no debt	7	35
Not sufficient, in debt	8	40

**Table 2.** Home survey data classified by family characteristics, house characteristics, safety, hygiene, and the survey team's opinions (n = 20)

House order	Family characteristics	House characteristics	Safety	Hygiene	Team's opinions
House No. 1	Extended family, 12 members: 2 elderly 6 adults 4 children	2 single room houses and 1 small cottage in 90 square meter of land. One house is made of wood, cover with zinc sheet roof but badly damaged, wood shingles and decayed wood; using for protection family's members from rain and wind, there were 5 persons residing; certain portions used as kitchen and storage. Second house is made with concrete blocks, 5 persons residing, and no room walls. One small cottage has only leaf roof, no walls, to protect against rain and wind, the patient and 1 relatives residing.	Not safe. No walls to protect against ill-willed people or animals. Risk of fire. Roof of cottage does not protect against rain.	Houses crowded with many people. Poor ventilation. Smelly with manure permeates throughout living area. No kitchen and clean area to store kindling used for cooking.	Urgent improvement and repair required.
House No. 2	Extended family, 11 members: 3 elderly 3 adults 5 children	One wooden house and an expanded area for living. The house has a raising floor with 3 walls, with cloth hung as a wall at the front; under the house is used for storage, 4 persons living here. Expanded side area for living has 3 concrete block walls with a plastic sheet as a door. Living area is in rice field with swamp and grass surrounding it; 3 families and 7 persons residing, including the patient. There was a separate latrine 10 meters away.	Not safe. Insufficient walling to protect against ill-willed people or animals. Risk of danger from falling into swamp and from reptiles. Potentially dangerous situations for the children and elderly because the location is far from community.	House in old condition Not in order.	Urgent improvement and repair required.
House No. 3	Extended family, 6 members: 3 adults 3 children	House in crowded community. Built with 2 floors. An upper floor made by Wood but no wall and cannot be used for living. Ground floor partitioned into 2 rooms with no door or windows. Walkway in the house used as a kitchen. Access to house is by a narrow alley.	Not safe. Risk of roof or second-story floor caving in. No door, no windows. Not safe from ill-willed people or animals. Roof does not protect against rain.	House is crowded. Poor ventilation. Inside not in order and not hygienic.	Urgent improvement and repair required.

**Table 2.** Cont.

House order	Family characteristics	House characteristics	Safety	Hygiene	Team's opinions
House No. 4	Extended family, 5 members: 1 elderly 2 adults 2 children	Two-story wooden row house with 1 bedroom on ground floor where 1 person resides. Four persons sleep under a mosquito net upstairs, which is an open space Stair rail made of wood, in unstable condition House in roadside. Mice found in house.	Unsafe, risk of falling down the stairs. Risk of contracting disease from animals. Risk of being hit by a car.	Smell of urine inside house. Poor ventilation Clothes piled inside not properly stacked. Not clean.	Not safe, should be supervised by staff. Family should be advised in terms of cleanliness and infectious animals.
House No. 5 to 20	3 extended families. 13 nuclear families.	House in good condition, strong and stable with fence around the residence.	Safe.	Clean. In order.	Good condition.

surveys are a good approach for obtaining data and determining problems and needs of patients and their families. Homes are an important factor affecting the development and growth of children with cleft lip and palate<sup>(2)</sup>. A house with good hygiene will protect against complications of the condition, such as infection of the respiratory tract. Home surveys are the responsibility of relevant staff on the health profession team so that the child patient's health will be improved holistically. Management of house safety is another duty of the survey team, as the right to safety is a fundamental human right to which all children are entitled. Children should be taken care of so that they may realize growth, play, and development, as well as having a safe environment. All children should be treated equally in this regard, and it is the responsibility of the state, parents, and all sectors in society to realize the rights of children and provide them with equal opportunity<sup>(7)</sup>.

The economic status of some families has led to poverty, with insufficient incomes relative to expenses forcing them to borrow money. A similar study to the present one, by Suteera Pradubwong et al, 2009<sup>(3)</sup>, also found poor families earning lower than 5,000 THB per month, which is much lower than the average household income in Northeast Thailand of 21,093 THB per month<sup>(8)</sup>. Most of the families that took part in the present survey were extended families in which the elderly were taking care of the children, similar to extended family households in suburban and rural areas in general, where the father and mother commute to work in town, leaving their children with the elderly<sup>(9)</sup>. Continued assistance for the children with CLP in this study has required coordination with Khon Kaen Provincial Administrative Organization in order to obtain information, as well as to ask for support repairing the 4 unsafe houses. Khon Kaen Provincial Administrative Organization has allocated budget for the repair of the 4 houses by assigning responsibility for these matters to the Tambon Administrative Organization [TAO].

## Conclusion

Most of the children with cleft lip and palate in this study were born into a poor family. The condition of their homes and the surrounding area are unsafe for them. The home visits in this study provided evidence that will be useful for facilitating further assistance. Community leaders should take part in the implementation of such assistance in order to strengthen the community.

### What is already known on this topic?

Children with cleft lip and palate are often born into poor families.

### What this study adds?

Apart from care given to children with cleft lip and palate in terms of physical and psychological aspects, their homes and surroundings should also be taken into account because their home and the surrounding area are key factors that impact the children's health.

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### Potential conflicts of interest

The authors declare no conflicts of interest.

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