

Study of Care for Patients with Cleft Lip/Palate (CLP) in the Lao People's Democratic Republic: Health Provider's Perspective

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Objective: The objectives of the present study included learning basic information on the problems among, and problem-solving for, the persons caring for patients with cleft lip/palate (CLP) in Lao People's Democratic Republic (PDR).

Material and Method: This was a cross-sectional, descriptive study done by completing a questionnaire during an interview. The sample group comprised physicians, anesthetists, nurses and public health officers a total of 34 persons from eight hospitals who attended a workshop at the Khammouan Hospital (October 16-20, 2010). The questionnaires were approved by 5 assessors and had a Cronbach's alpha of 0.89. General demographic information was collected as well as knowledge and understanding vis-a-vis the care of pediatric patients with CLP at Khammouan Hospital, in Lao People's Democratic Republic (PDR).

Results: Twenty of the public health officers surveyed were females. The average age of the officers was ~40 years. Sixteen of the officers were nurses from Khammouan Hospital. The survey of public health officers' taking care of patients with CLP revealed that (a) 19 were trained at Srinagarind Hospital, Faculty of Medicine, Khon Kaen University, Thailand (b) 23 had experience in caring for patients with CLP (c) 17 had a medical specialist at the center (d) 4 had sufficient officers at the center and (e) 13 had a good understanding of a multidisciplinary team approach to the care of patients with CLP while the majority (21) had either a poor understanding (13) or none at all (8). The survey of medical personnel's understanding in regard to the care of patients with CLP was moderate ($\bar{x} = 3.08$, $SD = 0.99$).

Conclusion: The problems of taking care of patients with CLP include lack of personnel (specifically professors to teach) knowledge, medical equipment and financial support. The solution lies in help from the government and overseas organizations for in- and out-bound training and grants.

Keywords: Cleft lip/palate, Lao PDR, Caring of patients

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Cleft lip/palate and craniofacial anomalies are congenital defects with numerous sequelae; on the teeth, speech development, hearing and overall psyche (countenance) of the patient. The condition also negatively affects the whole family, but especially the parents and their disposition of financial resources. CLP even significantly affects national budgets for overall healthcare. The number of Asian patients with

CLP especially patients in the Northeast of Thailand is double that among Caucasians⁽¹⁾.

In 1998, Chuangsuwanich reported that 59% of the patients with CLP in Thailand live in the Northeast geopolitical region⁽²⁾. For every 1,000 newborns, 2.49 have some form or degree of CLP, which is the highest rate in the world⁽³⁾. The Central Intelligence Agency (CIA) has reported that Lao PDR has the highest rate of newborns with CLP in the world. For every 1,000 newborns, there are 36.47 with CLP⁽⁴⁾.

The Lao People's Democratic Republic (Lao PDR) is a developing country bordering on Thailand with a language, lifestyle and culture similar to that of Northeast Thailand. The Royal Thai Government and

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Khon Kaen University have implemented policies to help with the diagnosis of patients with CLP in the nations of the Mekong Sub Region, one of which is Lao PDR. There are many problems which decrease the efficiency of patients' getting treatment in Lao PDR; for example, poverty, unemployment, and lack of technology and basic medical awareness at the community level⁽⁵⁾.

For the last 8 years, the Center for Cleft Lip-Cleft Palate and Craniofacial Deformities, Khon Kaen University, in association with the "Tawanchai Project", have cooperated with Handicap International Lao PDR; the Interplast team, Australia; a Belgian surgical team; Smile Train; AusAID; Women International Group; Healing The Children Missouri Foundation; and Mahosot Hospital, Lao PDR, in the diagnosis of patients with CLP and craniofacial anomalies^(6,7).

In 2009, a workshop was arranged (for physicians, anesthetists and anesthetist nurses, scrub nurses, pre- and post-operative nurses) for a total of 41 persons from 10 districts (or Kwang)⁽⁸⁾. The purpose of the workshop was to train medical officers about unconsciousness and surgery. The workshop was supported by (a) Healing the Children Missouri Foundation, USA (b) Khon Kaen University and (c) the Center for Cleft Lip-Cleft Palate and Craniofacial Deformities, Khon Kaen University, and the "Tawanchai Project". At the time, 95% of those surveyed were "very satisfied" while 5% were "satisfied".

When possible, it is most helpful if assistance to CLP patients like introductory information and/or instructional sessions can take place in the district where the patient lives. Thus, multidisciplinary teams from the Faculties of Medicine and Dentistry, Khon Kaen University, anesthetists from the Queen Sirikit National Institute of Child Health, Thailand and Canada, and surgeons from the USA, presented lectures in their subject areas, covering holistic CLP care and treatment. The authors interest was in studying CLP care among Laotian patients in Lao PDR because although several organizations have helped there for the past 8 years, there has not yet been any systematic review or research about the obstacles to getting treatment and achieving treatment outcomes. The authors hope that our research will help to promote sustainable and practicable CLP treatment in the Mekong Sub-Region.

Objective

1. To study the primary information regarding CLP treatment in Lao PDR; and,
2. To study the problems/obstacles faced by

patients' needing CLP treatment in Lao PDR and possible solutions.

Material and Method

This was a cross-sectional, descriptive study done by completing a questionnaire during a structured interview. The sample group comprised 34 persons from eight different hospitals: all joined the workshop which ran from October 16-20, 2010. The sample included physicians, anesthetists, nurses and public health officers. The questionnaires, validated by 5 assessors (for a Cronbach's alpha of 0.89), solicited general information, knowledge and understanding regarding the care of pediatric patients with CLP at Khammouan Hospital, in Lao People's Democratic Republic (PDR). The respective range for 'very good', 'good', 'medium', 'poor' and 'poorest' knowledge and understanding of care for pediatric patients with CLP was '4.50-5.00', '3.50-4.49', '2.50-3.49', '1.50-2.49' and '1.00-1.49'.

Descriptive statistics (percentage and standard deviation) were performed using SPSS for Windows⁽⁹⁾. The Laotian and Isaan (*i.e.*, Northeast Thai culture, language and region) were translated to Thai and content analysis performed to evaluate the qualitative feedback.

This descriptive research was approved by the Ethics Committee for Human Research, Khon Kaen University.

Data collection

The questionnaires were completed during 15 to 20 minute, structured interviews. A member of the research team conducted the interview in Laotian/Isaan and recorded the responses in Thai. This paper is based on the Thai translation.

Results

1.1 The sample group comprised 34 public health officers; 20 of whom were females. The average age of the officers was ~40 years. Sixteen of the officers were nurses from Khammouan Hospital (Table 1).

1.2 The survey of public health officers' taking care of patients with CLP revealed that (a) 19 were trained at Srinagarind Hospital, Faculty of Medicine, Khon Kaen University (b) 23 had experience in caring for patients with CLP (c) 17 had medical specialists at their respective center (d) 4 had sufficient officers for the workload and (e) 13 had a good understanding of a multidisciplinary team approach to the care of patients with CLP while the majority (21) had either a poor understanding (13) or none at all (8) (Table 2).

Table 1. Demographic information on the 34 respondents

| Demographics | Number (Persons) | Percentage (%) |
|---|------------------|----------------|
| Sex (n) | | |
| Males | 14 | 41 |
| Females | 20 | 59 |
| Age | | |
| 41-50 years old | 17 | 50 |
| 31-40 years old | 12 | 35 |
| 20-30 years old | 5 | 15 |
| Average age \bar{x} = 40 years old SD = 7.7 | | |
| Occupation | | |
| Surgeon | 7 | 21 |
| Anesthetist | 8 | 24 |
| Nurse | 16 | 47 |
| Others (mental health/Perioperative Nurse) | 3 | 9 |
| Hospital | | |
| Khammouan Hospital | 8 | 24 |
| Mahosot Hospital | 6 | 18 |
| Savannakhet Hospital | 4 | 12 |
| Louang Namtha Hospital | 4 | 12 |
| Oudomxai Hospital | 4 | 12 |
| Salavan Hospital | 3 | 9 |
| Champasak Hospital | 3 | 9 |
| Sisadtaabad Hospital | 2 | 6 |

Table 2. Responses to questions on training and patient care

| Question | | Number (Persons) | Percentage (%) |
|---|-------------|------------------|----------------|
| 1. Have you ever been trained to take care of patients with CLP from Srinagarind Hospital, Faculty of Medicine, Khon Kean University? | Yes | 19 | 56 |
| | No | 15 | 44 |
| 2. Have you had experience taking care of patients with CLP? | Yes | 23 | 68 |
| | No | 11 | 32 |
| 3. Does your work place have medical specialists for the care of patients with CLP? | Yes | 17 | 50 |
| | No | 16 | 47 |
| | Do not know | 1 | 3 |
| 4. Does your work place have sufficient officers for taking care of patients with CLP? | Enough | 4 | 12 |
| | Not enough | 2 | 6 |
| | Do not know | 1 | 3 |
| 5. Explain what is meant by a multi-disciplinary team for the care of patients with CLP? | Know | 13 | 39 |
| | Not sure | 13 | 39 |
| | Do not know | 8 | 24 |

1.3 The survey of medical personnel's understanding of caring for patients with CLP yielded an overall medium score (\bar{x} = 3.08, SD = 0.99). Twelve questions had a medium standard deviation (Table 3).

The problems encountered when taking care

of patients with CLP included (a) lack of personnel (especially university level trainers) (b) knowledge (c) medical equipment and (d) financial support. The solution, it was suggested, lies in government policies and financial and professional aid from overseas.

Table 3. Medical officers' understanding of caring for patients with CLP (n = 34)

| Knowledge base | Very good | Good | Medium | Poor | Very poor | Average point | Standard deviation (SD) |
|---|-----------|----------|----------|---------|-----------|---------------|-------------------------|
| 1. CLP | 1 (3%) | 10 (29%) | 15 (44%) | 4 (12%) | 4 (12%) | 3.03 | 1.05 |
| 2. Incidence of CLP | 1 (3%) | 10 (29%) | 15 (44%) | 7 (21%) | 1 (3%) | 3.09 | 1.07 |
| 3. Understand patient must receive treatment throughout growing years | 3 (9%) | 8 (24%) | 14 (41%) | 6 (18%) | 3 (9%) | 3.06 | 1.07 |
| 4. Understand patient must receive treatment by multidisciplinary team | 1 (3%) | 9 (26%) | 14 (41%) | 9 (26%) | 1 (3%) | 3.03 | 0.93 |
| 5. Pre-operative care for CLP | 3 (9%) | 10 (29%) | 11 (32%) | 9 (26%) | 1 (3%) | 3.15 | 1.02 |
| 6. Post-operative care for CLP | 2 (6%) | 8 (24%) | 14 (41%) | 8 (24%) | 2 (6%) | 3.00 | 0.98 |
| 7. Post-operative CLP wound care | 3 (9%) | 10 (29%) | 11 (32%) | 8 (24%) | 2 (6%) | 3.18 | 0.99 |
| 8. Understand patients have throat and middle ear infections | 0 (0%) | 8 (24%) | 18 (53%) | 7 (21%) | 1 (3%) | 2.97 | 0.76 |
| 9. CLP requires dento-orthodontic treatment | 2 (6%) | 8 (24%) | 18 (53%) | 4 (12%) | 2 (6%) | 3.12 | 0.91 |
| 10. CLP requires audiometric and speech therapy | 1 (3%) | 10 (29%) | 15 (44%) | 5 (15%) | 3 (9%) | 2.90 | 0.97 |
| 11. Patients with ridges cleft must have ridges bone graft surgery | 1 (3%) | 8 (24%) | 14 (41%) | 6 (18%) | 5 (15%) | 2.76 | 1.05 |
| 12. CLP treatment begins in newborns and continues until patient and caregiver are satisfied with outcome | 4 (12%) | 10 (29%) | 11 (32%) | 8 (24%) | 1 (3%) | 3.09 | 1.11 |
| Summary | | | | | | 3.08 | 0.99 |

Discussion

The sample of 34 medical officers comprised physicians, anesthetists, nurses and others—from eight of eleven district hospitals who have an abiding interest in caring for patients with CLP in Lao PDR. Most of these officers were trained at Srinagarind Hospital, Faculty of Medicine, Khon Kaen University, Thailand, and have had experience caring for patients with CLP. In the past, these officers had received overseas grants for furthering their capacity to work as part of a multidisciplinary team.

According to the survey, the medical officers' understanding of CLP patient care (a) was of a medium level for 12 questions and (b) most had a 'poor' or 'very poor' understanding of the CLP issues. These results suggest that in a developing region, the obstacles to care and poverty reduction create systemic impediments to proper, timely care.

The problems encountered by CLP medical practitioners in a developing country include lack of personnel (especially university level teaching staff), knowledge, medical equipment and financial support. Moreover, patients and families lack knowledge and resources to afford treatment, which has an compounding impact on the medical care system so an inadequate number of patients are being treated which in turn results in a shrinking budget.

The solution suggested implicitly and explicitly in the survey responses lies in (a) policy implementation through a combination of government, private and not-for-profit organizations (NGOs) (b) improving medical personnel's knowledge and (c) providing financial support for medical officers to do workshop, training and observation.

Conclusion

The two most important areas needing assistance in order to improve care of patients with cleft lip and cleft palate in a developing country, notably Lao PDR, include (1) public health officers' support and (2) the implementation and use of multidisciplinary care. Importantly, multidisciplinary care (including surgery) should be done locally whenever possible so that regional Laotian public health officers become more experienced and so that resources are localized.

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Potential conflicts of interest

None.

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การศึกษาการดูแลผู้ที่มีภาวะปากแห้งเพดานโหว่ในสาธารณรัฐประชาธิปไตยประชาชนลาว

สุธีรา ประดับวงษ์, ศิริพร มงคลถาวรชัย, ธาณี เพชรรัตน์, คำแสน แก้วประดับสี, บวรศิลป์ เชาวน์ชื่น

วัตถุประสงค์: เพื่อศึกษาข้อมูลเบื้องต้น ปัญหา และแนวทางการแก้ไขปัญหาของการดูแลผู้ป่วยปากแห้งเพดานโหว่ในสาธารณรัฐประชาธิปไตยประชาชนลาว (สปป. ลาว)

วัสดุและวิธีการ: การศึกษาแบบภาคตัดขวาง (cross-section descriptive study) ครั้งนี้ได้ใช้แบบสอบถามกับกลุ่มตัวอย่าง คือแพทย์ วิชาญญีแพทย์ พยาบาล และเจ้าหน้าที่สาธารณสุขอื่น ๆ จำนวน 34 คน จาก 8 โรงพยาบาล ซึ่งเข้าร่วมประชุมเชิงปฏิบัติการ ณ โรงพยาบาลแขวงคำม่วน ระหว่างวันที่ 16-20 ตุลาคม พ.ศ. 2554 ในด้านข้อมูลทั่วไป ข้อมูลด้านการดูแล และข้อมูลความรู้ความเข้าใจในการดูแลผู้ป่วยปากแห้งเพดานโหว่ ณ โรงพยาบาลแขวงคำม่วน สปป. ลาว ผู้นิพนธ์ได้ออกแบบสอบถามโดยผ่านการประเมินจากผู้ทรงคุณวุฒิจำนวน 5 คน และผ่านการทดสอบความน่าเชื่อถือวิธี Cronbach's alpha = 0.89

ผลการศึกษา: ข้อมูลทั่วไปของเจ้าหน้าที่สาธารณสุข เป็นเพศหญิง 20 คน ประกอบอาชีพพยาบาล 16 คน อายุเฉลี่ยประมาณ 40 ปี สังกัดโรงพยาบาลแขวงคำม่วน 8 คน โดยรวมมากที่สุด ในการดูแลผู้ป่วยปากแห้งเพดานโหว่ของเจ้าหน้าที่สาธารณสุขเคยเข้ารับการฝึกอบรมฯ จากโรงพยาบาลศรีนครินทร์คณะแพทยศาสตร์ มหาวิทยาลัยขอนแก่น 19 คน เคยมีประสบการณ์การดูแลฯ 23 คน ในหน่วยงานมีศูนย์การดูแลเฉพาะทางฯ 17 คน และมีบุคลากรเพียงพอ 4 คน และเจ้าหน้าที่ที่ทราบถึงความหมายการดูแลผู้ป่วยแบบทีมสหวิทยาการ 13 คน ไม่ทราบ 8 คน และไม่แน่ใจ 13 คน ส่วนในด้านความรู้ความเข้าใจในเรื่องการดูแลผู้ป่วยปากแห้งเพดานโหว่ โดยรวมคะแนนเฉลี่ยอยู่ในระดับปานกลาง ($\bar{x} = 3.08$, $SD = 0.99$)

สรุป: ปัญหาการดูแลผู้ป่วยปากแห้งเพดานโหว่ของ สปป. ลาว ได้แก่ การขาดบุคลากร ขาดผู้เชี่ยวชาญเฉพาะสาขา ขาดองค์ความรู้ขาดอุปกรณ์เครื่องมือ ขาดทุนทรัพย์ ผู้ป่วย และครอบครัวขาดความรู้ในการดูแลขาดทุนทรัพย์ที่จะเดินทางไปรักษา แนวทางในการแก้ไขปัญหา คือ ต้องการความช่วยเหลือจากภาครัฐและองค์กรต่างประเทศในด้านองค์ความรู้ ด้านทุนทรัพย์ในการจัดอบรม ด้านการศึกษาดูงานทั้งภายในและภายนอกประเทศ
