

Nursing Care System Development for Patients with Cleft Lip-Palate and Craniofacial Deformities in Operating Room Srinagarind Hospital

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Background: For a successful surgical outcome for patients with cleft lip/palate (CLP), the attending nurses must continuously develop their potential, knowledge, capacity and skills. The goal is to meet international standards of patient safety and efficiency.

Objective: To assess and improve the nursing care system for patients with CLP and craniofacial deformities at the operating room (OR), Srinagarind Hospital, Khon Kaen University.

Material and Method: Data were collected for two months (between March 1, 2011 and April 30, 2011). Part 1 was an enquiry regarding the attitude of OR staff on serving patients with CLP; and, Part 2.1) patient and caregiver satisfaction with service from the OR staff, and 2.2) patient and caregiver satisfaction with the OR transfer service.

Results: The authors interviewed 28 staff in OR unit 2 of the OR nursing division and 30 patients with CLP and his/her caregiver. The respective validity according to the Cronbach's alpha coefficient was 0.87 and 0.93. The OR staff attitude vis-a-vis service provision for patients with CLP service was middling. Patient and caregiver satisfaction with both OR staff and the transfer service was very satisfactory.

Discussion and Conclusion: Active development of the nursing care system for patients with CLP and craniofacial deformities in the operating room, Srinagarind Hospital improved staff motivation with respect to serving patients with CLP. The operating theater staff was able to co-ordinate the multidisciplinary team through the provision of surgical service for patients with CLP.

Keywords: Cleft lip-cleft palate (CLP), Operating theater attitudes, Patient caregiver satisfaction

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The Northeast region of Thailand has a disproportionately high incidence of cleft lip-palate (CLP) and craniofacial deformities (2.49 per 1,000 newborns)⁽¹⁾. Since CLP affects the facial structure and function, having a newborn with CLP is deeply disturbing (including grief, guilt and anxiety) and breaks positive expectations of the parents and extended family. Although the deformity is physical, the sequelae are nutritional, developmental and psycho-social. Patient care and treatment therefore emphasizes a trajectory of corrective surgeries and symptom resolution through the growing years into young adulthood (birth to 18 years of age). A

multidisciplinary team approach works to achieve as normal an appearance and as much functionality as possible. The satisfaction of the patient and family is the goal. In this regard, the patient and family receive encouragement, knowledge, suggestions and assistance from the team throughout the two decades of treatment^(2,3).

The key to successful treatment is assessing, correctly diagnosing and addressing *cum* treating the needs of each patient; by co-ordinating the diverse and particular skill sets of specialists in the correct sequence over the various growth stages/phases of the patient. At each stage, the results of treatment must enable a good quality of life. In other words, the treatment itself comprises discrete *cum* complete stages of success. There will be a beautiful face, a good speaking voice, dental eruption, order and occlusion as close to normal as possible, so that the patient may

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continue to develop intellectually and adapt socially⁽³⁾.

Services for cleft lip-palate and craniofacial Deformities began at Srinagarind Hospital, Faculty of Medicine, Khon Kaen University in 1978. The collection of surgical data began in 1984. The total number of CLP patients since then is 2,153 (from 3,545 cases), for an average 150 persons per year. The number of surgeries has increased to between 200 and 250 persons per year (e.g., 221 in 2010). Since nurses are key persons in the care and safety of patients having surgery, they must improve their potential, capability and skills and keep abreast with new medical procedures and technology; in order to achieve the best (quality and effective) care of patients undergoing surgery.

The center for cleft lip-cleft palate and craniofacial deformities at Srinagarind Hospital is integrated with the Tawanchai Foundation (a charity) which provides financial and 'in kind' support to augment the capacity to what the government sector provides. The foundation also co-ordinates medical services and provides information to patients with CLP who need surgery, crucial for quality medical service.

The researchers asked patients (and family member caregivers) about the attitudes of the staff taking care of CLP patients in the operating room. After their experience in OR, the patients and caregivers completed a questionnaire on their satisfaction and knowledge. The results of these questions provided baseline data. The purpose of these questions and formation of a database is to enable continuous improvement of medical services for patients with CLP.

Objective

To study and develop the nursing care system for patients with cleft lip-palate and craniofacial deformities in the operating theatre at Srinagarind Hospital, Faculty of Medicine, Khon Kaen University, Thailand.

Material and Method

There were 2 groups of the study: the first group was 28 nurses (22 registered nurses, 6 practical nurses) and the second group was 30 care givers. The researchers created a two-part questionnaire. Part 1 included 6 questions on the attitude of the operating theatre staff about care of CLP patients. Part 2 comprised (a) 2 sets of 6 questions on patient satisfaction with operating theatre service and transfers and (b) 6 questions on caregiver satisfaction with operating theatre services and transfers. The emphasis was on staff attitudes and performance of their assigned duties.

Seven experts performed the content validity of the questionnaire. The cronbach's alpha coefficient was 0.87 and 0.93 for parts 1 and 2, respectively.

The questionnaires were administered to 2 purposively sampled groups: 1) 28 staff in the operating unit 2 of the operating theatre nursing division, and 2) 30 patients with CLP, they also were homogeneous. Then, they could represent the entire sampling group. Besides, their caregivers present at the operating theatre nursing division.

Data were collected during working hours over a 2-month period (between March 1, 2011 and April 30, 2011).

Ethical consideration

Study was approved by the Ethic committees on human rights Related of Khon Kaen University.

Interpretation criteria

The scoring criteria for the questions ranged between Strongly agree = 5 and Strongly disagree = 1. An attitude score of 4.50-5.00, 3.50-4.49, 2.50-3.49, 1.50-2.49 and 1.00-1.49 indicated the highest, a high, a medium, a low and lowest level, respectively.

The respective scoring for great, good and fair transfer service or needs improvement was 4, 3 and 2 or 1 point.

A respective caregiver satisfaction score of 3.10-4.00, 2.10-3.00 and 1.00-2.00 indicated high, medium and needs improvement.

Respondents were asked where and how services might be improved.

Results and Discussion

The majority of operating theatre personnel were nurses 28 person (100%); 36% of whom had worked in this position for more than 15 years. Most of the caregivers were the mothers of the CLP patient (73.3%). Most caregivers had graduated from high school or had a vocational certificate (63.3%). Most (90%) of the caregivers were rural denizens and 40% were wage earners.

The survey of attitudes of operating theatre personnel with respect to serving patients with CLP 3.83, revealed that they work together with the multidisciplinary team for the benefit of patients at a high level. The lowest score was 3.13 points and that was in the realm of personnel confidence in the specialized instruments used for CLP surgery (Table 1).

Patient/caregiver satisfaction with the

operating theatre transfer service was 'great' for every item. The highest satisfaction was with ensuring that the patient had stopped drinking water and eating before surgery (3.67 points). The lowest score was for self-introductions to patients by personnel when they met the patient in the ward and for satisfaction with transfer services from the Operating Theatre to ward (3.40 points) (Table 2).

There was good overall patient satisfaction with the services in the operating theatre. Caregivers were very satisfied with the personnel in all categories. The highest score was for self-introductions to patients before providing information (3.40 points) while the lowest score was for not observing how the patient felt (i.e., anxiety) and whether or not the patient could understand the information being given (3.07 points) (Table 3).

The authors found that patients with CLP and

their caregivers were wholly satisfied with their overall surgical experience; that is, the preparatory phase, the transfer and the surgery itself: the personnel at each step of the journey were conscientious, professional and dedicated to the patient. This result agrees with Kawewong⁽⁶⁾, who studied the Development of the Out-patient Department at Kamalasai Hospital, Kalasin Province and Client satisfaction and found that the level of client satisfaction was high after implementation of systematic nursing processes. Kawewong suggested that other departments could use her study for improving services and personnel attentiveness. All departments could, moreover, query clients, patients and caregivers about their level of satisfaction with services and personnel about their attitudes toward work and levels of stress. Similarly, Khurasei⁽⁷⁾ studied the Development of out-patient department at Changhan Hospital, Roi Et Province and client

Table 1. Attitude of operating theatre personnel to patients with cleft lip-cleft palate (n = 28)

Services	Mean	Standard deviation	Point average
1. You know about CLP	3.17	0.737	Medium
2. You are confident that you can give correct information about CLP to the patients and their family	3.23	0.793	Medium
3. You can properly prepare the OR and instruments	3.73	0.903	High
4. You can properly prepare the instruments and sutures for the patient getting CLP surgery	3.50	0.957	High
5. You are confident you can pass the correct instruments during the CLP surgery	3.13	0.916	Medium
6. You can coordinate with the multidisciplinary team in order to serve the CLP patient at each stage of surgery	3.83	0.996	High

Table 2. Patient/caregiver satisfaction with the operating theatre (OR) transfer service (n = 30)

Services	Mean	Standard deviation	Point average
1. OR personnel introduced themselves to you when he/she met you at the patient ward	3.40	0.724	Best
2. OR personnel asked your first and family name and confirmed it on the patient case history file on the bed	3.60	0.621	Best
3. You were satisfied with the transfer services from the patient ward to the OR before the surgery	3.57	0.571	Best
4. OR personnel were polite and carefully transferred you/the patient	3.50	0.571	Best
5. OR personnel confirmed that you, the patient, had stopped drinking and eating the night before	3.67	0.535	Best
6. You were satisfied with the transfer services from the OR to the patient ward after surgery	3.40	0.621	Best

Table 3. Patient/caregiver satisfaction with the operation theater (OR) personnel (n = 30)

Services	Mean	Standard deviation	Point average
1. OR personnel introduced themselves before giving information/suggestions	3.40	0.62	Best
2. You felt comforted and relaxed while you were waiting at the patient preparing room before surgery	3.30	0.69	Best
3. You understood about the CLP disease including the medical treatment you were about to undergo	3.10	0.66	Best
4. You had sufficient information to make you confident regarding the treatment after surgery	3.10	0.66	Best
5. You, the patient, felt taken care of so that you were at ease while waiting at the patient preparing room before surgery	3.33	0.53	Best
6. You observed that while taking care of the patient, the patient felt relaxed and cooperated with the OR personnel	3.10	0.66	Best

satisfaction there and found that after implementation of nursing procedures, client satisfaction was high.

Conclusion

After developing the nursing care system, the authors found that operating theatre personnel had a good overall attitude toward providing service to patients with cleft lip-cleft palate. Personnel were able to serve patients at each stage of the surgery process (pre-, during and post-). Patient/caregiver satisfaction was very good both with OR transfers and the service from the OR personnel themselves. System development has, therefore, effectively improved the attitude and performance of OR personnel: patients with cleft lip-cleft palate and caregivers are satisfied with the services.

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Declarations

The authors have no competing interests. All of the authors participated in the design, execution, analysis and writing up of this study. All of the authors have seen and agree with the content of this manuscript.

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Potential conflicts of interest

None.

References

1. Ruangsitt C, Phraserthsang P, Banpho Y, Lamduan W, Glathamnuay S, Nuwantha A. Incidence of cleft and cleft palate in three hospitals in Khon Kaen. Khon Kaen: Department of Orthodontics, Faculty of Dentistry, Khon Kaen University; 1993.
2. Chowchuen B. Interdisciplinary care of cleft lip palate and craniofacial abnormalities. Khon Kaen: Siriphan Offset; 2004.
3. Pradubwong S. Interdisciplinary care on timing of cleft lip-palate. *Srinagarind Med J* 2007; 22: 291-6.
4. Pradubwong S, Lekkunyasiri O, Chantachum V, Udomtanasup S, Simmalee K, Chowchuen B. Application of Geographic System (GIS) for management of cleft lip-palate care at the Tawanchai Cleft Center. *J Med Assoc Thai* 2010; 93(Suppl 4): S58-62.
5. The Operation Manual of the Project. "Beautiful Smile with Clear Voice" for honoring 50-year-old of Her Royal Highness Princess Maha Chakri Sirindhorn. 2nd ed. Bangkok: Work Print 93; 2007.
6. Chusilp K. Caring newborn baby with cleft lip palate: the cooperation in caring and operating patients with CLP with interdisciplinary method.

The project meeting of academic service of excellent center; 19-21 October, 2009. Khon Kaen: Faculty of Medicine, Khon Kaen University; 2009.
7. Vachajitpan P. Manufacturing management.

Bangkok: National Institute of Development Administration; 1978.
8. Srisathitnarakul B. Research methods in nursing. 2nd ed. Bangkok: Chulalongkorn University; 2003.

การพัฒนากระบวนการพยาบาลผู้ป่วยที่มีความพิการปากแหว่งเพดานโหว่ใบหน้าและศีรษะห้องผ่าตัด โรงพยาบาลศรีนครินทร์

เสาวลักษณ์ วิรัตน์พงษ์, วัลัญญา สร้อยหิน, กิ่งกาญจน์ โคตรพัฒน์, ขนิษฐา วรธงชัย

ภูมิหลัง: การให้การพยาบาลและการดูแลผู้ป่วยให้ได้รับความปลอดภัยทุกระยะของการผ่าตัดและช่วยให้ทีมผ่าตัด ประสบผลสำเร็จ พยาบาลต้องพัฒนาศักยภาพ ความรู้ความสามารถในการพยาบาลผ่าตัดผู้ป่วยเฉพาะทางตลอดจนพัฒนาทักษะให้ก้าวหน้าทันเทคโนโลยีทางการแพทย์สมัยใหม่ เพื่อให้ผู้ป่วยได้รับการบริการที่ปลอดภัย มีคุณภาพและมีประสิทธิภาพมากยิ่งขึ้น

วัตถุประสงค์: เพื่อศึกษาและพัฒนากระบวนการพยาบาลผู้ป่วยปากแหว่งเพดานโหว่ใบหน้าและศีรษะ ห้องผ่าตัดโรงพยาบาลศรีนครินทร์

วัสดุและวิธีการ: เครื่องมือในการเก็บรวบรวมข้อมูล แบ่งออกเป็น 2 ส่วน คือ ส่วนที่ 1 แบบสอบถามทัศนคติ ของเจ้าหน้าที่ห้องผ่าตัดต่อการบริการผู้ป่วยผ่าตัดปากแหว่งเพดานโหว่ ส่วนที่ 2 แบบสอบถามความพึงพอใจต่อการบริการสำหรับผู้ป่วยปากแหว่งเพดานโหว่/ผู้ดูแล จำนวน 2 ชุด คือ 1) แบบสอบถามความพึงพอใจของผู้ป่วยปากแหว่งเพดานโหว่/ผู้ดูแลต่อการบริการของเจ้าหน้าที่ห้องผ่าตัด 2) แบบสอบถามความพึงพอใจของผู้ป่วยปากแหว่งเพดานโหว่/ผู้ดูแลต่อการบริการรับส่งของห้องผ่าตัด โดยวิเคราะห์ค่าความเที่ยงโดยสัมประสิทธิ์แอลฟาครอนบาค หลังจากนั้นทดลองใช้ (Cronbach's alpha coefficient) ได้ 0.87 และ 0.93 นำแบบสอบถามไปศึกษาใน 2 กลุ่มตัวอย่าง ที่เลือกแบบเฉพาะเจาะจง (purposive sampling) คือ เจ้าหน้าที่ปฏิบัติงานในหน่วยผ่าตัด 2 แผนกการพยาบาล ห้องผ่าตัด จำนวน 28 คน และผู้ป่วยปากแหว่งเพดานโหว่/ผู้ดูแลที่เข้ารับบริการที่แผนกการพยาบาลห้องผ่าตัด จำนวน 30 ราย ใช้เวลาเก็บรวบรวมข้อมูลตั้งแต่วันที่ 1 มีนาคม พ.ศ. 2554 ถึง 30 เมษายน พ.ศ. 2554 ในวันและเวลาราชการ

ผลการศึกษา: ทัศนคติของเจ้าหน้าที่ห้องผ่าตัดต่อการบริการผู้ป่วยผ่าตัดปากแหว่งเพดานโหว่อยู่ในระดับมาก และด้านความพึงพอใจของผู้ป่วยปากแหว่งเพดานโหว่/ผู้ดูแล ต่อการบริการรับส่ง และต่อการบริการของเจ้าหน้าที่ ห้องผ่าตัดอยู่ในระดับดีมากทั้งสองด้าน

สรุป: การพัฒนากระบวนการพยาบาลผู้ป่วยที่มีความพิการปากแหว่งเพดานโหว่ ศีรษะและใบหน้า แผนกการพยาบาล ห้องผ่าตัดโรงพยาบาลศรีนครินทร์ ทำให้เจ้าหน้าที่ห้องผ่าตัดมีทัศนคติที่ดีต่อการให้บริการ ผู้ป่วยผ่าตัดปากแหว่งเพดานโหว่สามารถประสานงานกับทีมสหสาขาวิชาชีพในการบริการผู้ป่วยผ่าตัดปากแหว่งเพดานโหว่ได้ทุกขั้นตอนของการผ่าตัด
