

# Nursing Outcome in Patients with Craniofacial Anomalies Who Underwent Operation

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**Background:** The Northeast of Thailand has patients with craniofacial anomalies about 2.5: 1,000 children birth. Ward 3C Srinagarind Hospital has about 150-200 cases of patients with craniofacial anomalies each year. Some of them have an operation about 10 times. When the patients go to hospital to undergo operation, patients and families experience fear and anxiety. They need information about their disease, operation, feeding and wound care. Nurses who work continuously and closely with the patients need to have ability to support patients needs by using nursing process. Nursing outcome will help nurses to measure the quality of nursing care.

**Objective:** To study nursing outcome in the patients with craniofacial anomalies who were admitted in 3C ward.

**Material and Method:** The present study is retrospective descriptive study. Data was collected from medical records of 27 patients with craniofacial anomalies who were admitted in 3C ward Srinagarind Hospital between June 2010 to May 2011. Medical records were purposively selected for the study and recorded with a data collection form.

**Results:** The authors found that 2.36% of patients had wound infection. 100% of parents received information about disease, medication, self care but some information was not received or was received but not understand. 1 case of patients unplanned readmit. Length of stay of patient 2.74 days. Parents satisfaction is 91.81%.

**Conclusion:** Patients had wound infection when back home because care giver cannot clean patients wound correctly, parents and care giver did not receive enough information or did not understand all information.

**Keywords:** Nursing outcome, Craniofacial anomalies, Patients who underwent operation

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Cleft lip and cleft palate are the most common craniofacial anomalies, affecting approximately 2.49 of every 1,000 children born in North East Thailand<sup>(1)</sup>. Srinagarind Hospital has 100-150 cases of cleft lip and palate each year<sup>(2)</sup>. Unexpected birth of infants with cleft lip and cleft palate has psychological effects for parents and some parents feel nervous with their child and also can have marriage problems<sup>(3)</sup>. The process for cleft lip and palate care requires continuity of care involving a multidisciplinary team<sup>(4)</sup>.

The patients with cleft lip and palate have problems with feeding, swallowing difficulties and delayed development. When they go to hospital to receive surgery, the pain, limited activity and food are very different from normal life. When going to school,

children will separate from other friends. They have speech articulation problems, suffer from shyness, social isolation and loneliness<sup>(5)</sup>. When becoming teenagers they have low self esteem and self image<sup>(6)</sup>. Complete rehabilitation by holistic and interdisciplinary care is very important to patients and family. During pre and post operative care nurses who work continuously and closely with the patients require knowledge, experience and ability to take excellent care of their patients and families to prevent illness, duplicate rehabilitation and promote quality of life and respond well to patients needs<sup>(7)</sup>. It can prevent complications and help their decision process, decrease parental stress and encourage better co-operation. Nurses need to have ability to support patients needs by using nursing process. Nursing outcome will help nurses to measure the quality of nursing care.

## Objective

To study nursing outcome in patients with craniofacial anomalies who were admitted in 3C ward

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### **Nursing care**

Nursing care is the method where nurses use their nursing ability to adjust the balance between self care ability and self care demand. Starting by searching the problem or needs then developing patient or clients ability for self care. Nursing care is a dynamic system depending on patients or clients needs<sup>(7)</sup>. To develop nursing care needs integrated quality management and risk management together. Nursing care comprises<sup>(8)</sup>:

1. Outcome-based nursing service. This is specific nursing care to each health problem.
2. Holistic care: integrated physical, mental, emotional, social and spiritual care together. All of nursing activity focused on the science of caring.
3. Family-based nursing practice: its focus on family centre to solve health problem.
4. Management view: This is the management system for nursing quality. Using nursing process, nursing conference, nursing rounds, nursing modalities, and nursing documentation.

Nursing care has to integrate 4 dimensions of service thus: treatment, health promotion, prevention of illness and rehabilitation as well as concern about holistic care<sup>(7)</sup>. Nurses provide nursing care to all people to solve health problems, so need to have knowledge, ability to prevent illness, duplicate rehabilitation and promote quality of life. Nurses use Care MAPs and nursing care plan to guide nursing implementation in response to patients needs<sup>(9)</sup>.

### **Nursing outcome**

Nursing outcome is the end results of nursing care. The International Classification for Nursing Practice (ICNP) defines a nursing outcome as the measure of a nursing process after nursing intervention<sup>(10)</sup>. Many aspects can affect the outcomes such as disease, diagnosis, sign and symptom severity, socio-economic factors, family support, age and gender, quality of nursing care and professional care team.

### **Nursing outcome indicators**

Nursing outcome indicators are related between nursing intervention that patients have received and their resulting health status. They are the measurement of nursing care by measuring patient outcomes. The patient outcomes usually use measuring nursing outcome thus: Patient complications such as infections, pressure sore, pneumonia and deep vein

thrombosis/pulmonary embolism, failure to response to patients condition, patients length of stay, patients functional status, knowledge of condition and treatment, patient satisfaction with care, unplanned emergency department visits, unplanned readmissions<sup>(11)</sup>. These outcome will help nurses to measure the quality of nursing care. In the present study, the authors used wound infection, patients' information receiving, patients' satisfaction, unplanned readmission and length of stay to measure nursing outcome.

### **Material and Method**

The present study is retrospective descriptive study. The data was collected from medical records of 127 patients with craniofacial anomalies who were admitted for operation in 3C ward Srinagarind Hospital, Faculty of Medicine, Khon Kaen University, Thailand. Medical records were purposively selected for the study and recorded with a data collection form.

### **Sample population**

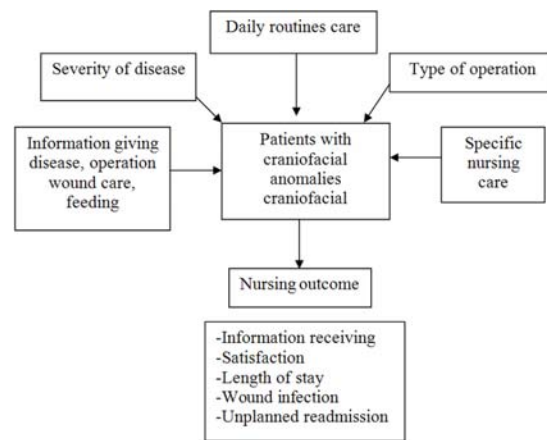
Medical records of the patients with craniofacial anomalies who underwent operation between June 2010 to May 2011. Medical records of the patients were purposively selected for the study according to the following criteria:

#### **Inclusion criteria**

- Patients with craniofacial anomalies who undergoing operation.
- Age from 2 months-15 years old.

#### **Exclusion criteria**

- Patients with craniofacial anomalies and another anomalies.



**Fig. 1** Conceptual fram work of the study

### Data collection

127 medical records of patients with craniofacial anomalies who underwent operation and admitted in 3C ward, Srinagarind Hospital between June 2010 to May 2011 were recorded with data collection form by nurse.

### Data analysis

There are two main parts of analysis, describing characteristics of the patients and analysis for answering the research question. Categorical data: age, sex, diagnosis, type of surgery, economic status, wound infection, information, unplanned readmit were presented by number and percentage. Continuous data: length of stay, patients satisfaction were presented by mean and standard deviation.

### Measurement of the outcome

1. Demographic data, data collecting form selected for study were age, sex, diagnosis, type of surgery, economic status.

2. Nursing outcome: the present study focused on 5 outcome thus: wound infection, receiving information, patients satisfaction, unplanned readmit and length of stay.

The present study was approved by The Ethics Committee for Human Research, Khon Kaen University, Thailand.

### Results

#### 1. Demographic data:

From 127 medical record of patients 74 cases were male (58.3%), age was between 2 month-13 years, average 17 months. 27 cases (21.3%) were patients with cleft lip, 26 cases (20.5%) were patients with cleft palate,

72 cases (56.7%) were patients with cleft lip and palate, 1 case (0.8%) was patient with microtia and 1 case (0.8%) was patient with hemifacial microsomia, 118 cases (92.9%) of medical treatment was subsidized by the government. 50 cases (39.4%) were cheiloplasty and 58 cases (45.7%) were palatoplasty. 9 cases (7.1%) were repair fistula. 10 cases (7.9%) were lip and nose correction.

### 2. Nursing outcome

#### 2.1. Wound infection

3 cases (2.36%) of patients have wound infection including 1 case of cheiloplasty had stitch abscess and 2 cases of correction.

#### 2.2. Receiving information

100% of patients/care giver get information about disease, treatment medicine and self care but some points couldn't be understand as Table 1.

#### 2.3. Patients/parents satisfaction

Percent of satisfaction is 55-100 average 91.8% as Table 2.

#### 2.4. Length of stay

Patients stayed in hospital 2-7 days, average 2.74 days.

#### 2.5. Unplanned readmission

1 case had flap necrosis after 2 flap palatoplasty.

### Discussion and Conclusion

The present study answers the research question about nursing outcome into 5 items as follows:

Table 1. Receiving information

Information	Not receive		Receive			
	cases	%	Understand cases	%	Not understand cases	%
1. Disease & treatment	0	0	126	99.2	1	0.8
2. Information for preparing operation	1	0.8	125	98.4	1	0.8
3. Feeding	2	1.6	122	96.1	3	2.4
4. Wound dressing	1	0.8	124	97.6	2	1.6
5. Mouth care	1	0.8	124	97.6	2	1.6
6. Pain management	3	2.4	122	96.1	2	1.6
7. Medicine	1	0.8	121	95.3	5	3.9
8. Abnormal sign and symptom	5	3.9	118	92.9	4	3.2
9. Date and time to follow up	2	1.6	122	96.1	3	2.4

**Table 2.** satisfaction

	No.	Minimum	Maximum	Mean	Std. Deviation
Satisfaction	127	55.00	100.00	91.8110	9.89928

**Table 3.** length of stay

	No.	Minimum	Maximum	Mean	Std. Deviation
Length of stay	127	2.00	7.00	2.7402	0.96125

1. Wound infection rate: the authors found 2.36% of patients had wound infection, 1 of these patients got cheiloplasty, in this case, after the operation the care giver can not dress their child wound correctly because in hospital nurse gave information and demonstration about taking care of the wound to the mother, but when patient went home his grandmother took care of the wound. Grandmothers can often have big influence on the parents about taking care of children in Thailand especially in rural area. The authors also evaluated the grandmothers ability with wound dressing when they cameback for follow-up and we found that she can not do it correctly, so nurse need to re-evaluate the process of information giving and need assessment of who will influence/take care of the child when back home then try to encourage to learn how to take care their children. 2 cases of correction had stitch abscess because the absorbable stitch did not absorb in the right time.

2. Receiving Information: 100% of patients receive information, but not about all items and some items parents/care giver can not understand so more time is needed to give the information or improve the way of giving information and repeat the information again when they leave the hospital.

3. Satisfaction: 55-100%, average 91.8% of patients satisfaction, in detail, the authors found that care givers would like a longer stay in hospital, because not confident if their children will be safe when back home within 2 days after operation, so nurses need to inspire confidence that everything is fine with their child and encourage them to take care of their child.

4. Unplanned readmission: only 1 case unplanned readmission because of flap necrosis.

5. Length of stay: patients were admitted for 2.74 days in hospital. It is the standard of cleft care.

From the result the authors found that information is very important for the patients with

craniofacial anomalies to prepare patients and family to face their situation and prevent infection. So the authors should develop the way to give patients/family information.

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#### Potential conflicts of interest

None.

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## ผลลัพธ์การพยาบาลผู้ป่วยที่มีความพิการของศีรษะและใบหน้าแต่กำเนิดที่ได้รับการผ่าตัด

ดาราวรรณ อักษรวรรณ, พันธมนัส บัดตั้งทานัง, กฤษณา พิขุนทด, พลากร สุรกุลประภา

**ภูมิหลัง:** ภาคตะวันออกเฉียงเหนือ มีทารกที่มีความพิการของศีรษะและใบหน้าแต่กำเนิด 2.5:1,000 ในทารกแรกเกิด หอผู้ป่วย 3ค โรงพยาบาลศรีนครินทร์ มีผู้ป่วยมาเข้ารับการรักษาประมาณ 150-200 ราย ต่อปี ซึ่งผู้ป่วยบางคนได้รับการผ่าตัดถึง 10 ครั้ง เมื่อผู้ป่วยเข้ารับการรักษาโดยการผ่าตัด ผู้ป่วยและครอบครัวมีความรู้สึกกลัว กังวล และต้องการรู้ในเรื่องโรคการผ่าตัด การรับประทานอาหาร การดูแลบาดแผล พยาบาล ซึ่งเป็นผู้ที่ใกล้ชิดอยู่กับผู้ป่วย ตลอด 24 ชั่วโมง ต้องมีความสามารถทางการพยาบาล เพื่อตอบสนองความต้องการที่จำเป็นของผู้ป่วย โดยมีการนำกระบวนการพยาบาลมาใช้ ซึ่งผลลัพธ์ทางการพยาบาลจะเป็นตัววัดคุณภาพการให้พยาบาล

**วัตถุประสงค์:** เพื่อศึกษาผลลัพธ์การปฏิบัติการพยาบาลผู้ป่วยพิการของศีรษะและใบหน้าในหอผู้ป่วย 3ค

**วัสดุและวิธีการ:** การศึกษาครั้งนี้เป็นการศึกษาเชิงพรรณนาเก็บข้อมูลย้อนหลังจากเวชระเบียนผู้ป่วยความผิดปกติของศีรษะและใบหน้าแต่กำเนิดที่เข้ารับการรักษา และได้รับการผ่าตัดในโรงพยาบาลศรีนครินทร์ ระหว่างเดือนมิถุนายน พ.ศ. 2553 ถึง พฤษภาคม พ.ศ. 2554 จำนวน 127 ราย เป็นการเลือกกลุ่มตัวอย่างแบบเฉพาะเจาะจง เก็บข้อมูลโดยใช้แบบบันทึกการเก็บข้อมูล

**ผลการศึกษา:** พบว่าผู้ป่วยมีการติดเชื้อของแผล ร้อยละ 2.36 ผู้ปกครองได้รับข้อมูล ในเรื่องโรคและการรักษา การเข้ายารักษา การดูแลตนเอง ร้อยละ 100 แต่ยังมีบางประเด็นที่ยังไม่ได้รับข้อมูล และบางประเด็นที่ได้รับข้อมูลแต่ไม่เข้าใจ มีผู้ป่วยเข้ารับการรักษาซ้ำ (unplanned readmit) จำนวน 1 ราย ระยะเวลาอนโรงพยาบาลเฉลี่ย 2.74 วัน ผู้ปกครองมีความพึงพอใจต่อบริการที่ได้รับเฉลี่ย ร้อยละ 91.81

**สรุป:** ผู้ป่วยยังมีการติดเชื้อของแผลผ่าตัดเมื่อกลับไปอยู่บ้าน จากการที่ผู้ปกครองไม่สามารถให้การดูแลเรื่องการทำแผลได้อย่างถูกต้อง นอกจากนั้นยังมีผู้ป่วยได้รับข้อมูลไม่ครบถ้วนและไม่เข้าใจในเนื้อหาที่เจ้าหน้าที่ได้ให้ข้อมูล

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