Evidence-Triggers for Care of Patient with Cleft Lip and Palate at Srinagarind Hospital: Antenatal Care Unit

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Background: The abnormalities of cleft lip and palate (CLP) condition are the serious problems which always found in the northeastern region of Thailand. The treatment must be sustainably and continuously integrated by the interdisciplinary team, including registered nurses who take care of all nine organizations under the corporation among nurses who work at Tawanchai Cleft Center. Starting from the diagnosis of the fetus by the new technology along with medical knowledge which can diagnose the abnormalities since birth. The diagnosis of the fetus with CLP affects mental and health of mother, so the nurse who takes extended care of them needs to have the data in order to plan the integration treatment and prepare them to be ready of confronting to the crisis. Also, this is for the adaption of fetal abnormalities and the encouragement for their new baby. Hence, clinical evidence triggered for care of pregnant women with fetal CLP is really important.

Objective: To trigger the clinical evidence of pregnant women whom found the fetal CLP at antenatal care unit, Srinagarind Hospital.

Material and Method: This descriptive study of clinical evidence-triggers for care of pregnant women with fetal CLP is the part of the study in antenatal care clinic which was applied to use the clinical evidence-triggers of The Center for Advance Nursing Practice Model. After the considerations of human ethics, the four stimulators were examined as the followings: 1) the simulation of practice triggers which was studied by reviewing five patient medical records in order to know the general data and health condition; 2) reviewed related literature, 3) interviewed five pregnant women whom diagnosed with fetal CLP, 4) interviewed one responsible nurse with 15-20 minutes, and using open-ended questions to ask about the health problems of pregnant woman, also giving an advice. The data were collected during January-December 2015. The descriptive data were analyzed using percentage and the qualitative data were analyzed by content analyses.

Results: A total of five pregnant women with fetal CLP were included in the study with the mean age of 32 years, and the second pregnancy was 80%. The clinical problems of pregnancy with fetal CLP included: 1) mental and health of pregnant women and families; 2) discouragement of being pregnant and taking care of their pregnancy; 3) fetal facial image; and 4) nurture of such fetus after birth.

The results after the diagnosis of pregnancy with fetal CLP and receiving advice from physicians and nurses were found regarding medical records that they were advised from the physician and nurse towards the abnormalities and chromosome inspection, and given treatment after birth. According to the interviewing of the nurse, it was found that the pregnancy felt regret and denied the diagnostic results, and needed treatment information. Besides, according to the interviewing of the pregnancy, it was found that they wanted to discontinue the pregnancy, needed information, wanted to know about any abnormality. The literature review revealed that nurses were those who providing care, knowledge, and advice.

Conclusion: The clinical problems of pregnant women detected with fetal CLP included feelings of disappointment, sadness, and regret whether or not found other abnormalities and being stress in caring for pregnant and postpartum care. The best handling and treatment was to obtain care from the interdisciplinary team in order to help them and their families to face with the crisis, accept to the abnormality of the fetus and having alternatives, and select such the appropriate alternatives, including antepartum and postpartum care.

Keywords: Fetal cleft lip and palate, Evidence-triggers, Antenatal care unit, Srinagarind Hospital

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Cleft lip and palate are common newborn birth defects occurring in the northeastern region of Thailand at 2.49 per every 1,000 live births or 745 cases per year\(^1\). Srinagarind Hospital registered 1.14 per every 1,000 newborns between 1990-1999\(^2\) whilst, it was 1.15 cases per every 1,000 newborns in Thailand\(^3\). These birth defects need interdisciplinary team care inclusive of holistic care starting from diagnosis into late adolescence.

The partial or complete closure of lip and both hard and soft palate often leads to facial disfigurement, feeding difficulties, developmental, speech, hearing and psychological challenges for both patients and families. All these have to have been managed by a specialized interdisciplinary team that involves: 1) plastic surgeons; 2) pediatricians; 3) obstetricians; 4) dentists; 5) otolaryngology medical; 6) speech therapy; 7) hearing therapy; 8) psychiatrist; 9) nurse specialists for counseling; 10) nurse specialists for breastfeeding; 11) nurse specialists in CLP; 12) social workers; 13) radiologists; 14) anesthesiologists; and 15) related health staff, including coordination nurse of each department to serve patients with CLP\(^4-6\).

The team of obstetrician and nurse in antenatal care screen and diagnose high risk women by using the advanced technology and medical knowledge to diagnose congenital disease in the womb before birth. At Srinagarind Hospital, based on the records of CLP, six, eight and five cases were found in the year 2013, 2014 and 2015, respectively\(^7\). The pregnant women who had been diagnosed with fetal abnormalities of CLP might undergo psychological stage of disappointment, concerns, and stress throughout pregnancy that could affect both mother and their fetus. Therefore, the nurses in antenatal care need to realize for the importance of counseling, suggestion, and empowering the pregnant women and their families, including the coordination nurse of each department to serve patients with CLP\(^7\).

Material and Method

This descriptive study aiming to examine the clinical evidence for care of patients with fetal CLP is the part of the study in the area of antenatal care which based on The Center for Advance Nursing Practice Model. After the consideration of human ethic, the four stimulators were studied: 1) the simulation of practice triggers was studied by reviewing five patients medical records in order to know the general data and health conditions; 2) reviewed related literature; 3) interviewed five pregnant women whom were diagnosed with fetal CLP; 4) interviewed one responsibility nurse with 15-20 minutes using open-ended questions to ask about the health problems of pregnant women those diagnosed with fetal CLP. The data were collected during January-December 2015. The descriptive data were analyzed by percentage and the qualitative data were analyzed using content analyses.

Ethical consideration

The study was reviewed and approved by the Human Research Ethics Committee, Khon Kaen University (Project No.: HE 581345).

Results

A total of five pregnant women with fetal CLP were included in the study with the mean age was 32 years. Two of which (40%) had a degree in vocational and vocational professional, and four cases with the second pregnancy of the gestational age less than 20 weeks (Table 1).

The common reported problems in pregnant women with fetal CLP based on the medical records included the late diagnosis, threatened abortion, and anxiety. The interviews with nurses found that the pregnant women felt sad, disappointed, anxiety, and insomnia. For the interviewing with the pregnancy with fetal CLP conditions and their families, it was found that the problems included the disappointment, sadness, threatened abortion, concerns the care after birth. According the literature review, it was found that the disappointment, sadness, anxiety were the common problems (Table 2).

After the diagnosis of the pregnancy with fetal CLP and advised by a team of doctors and nurses, it was found that they were advised by such team about chromosome inspecting and care after birth. Based on the interviews of nurses, it was found that pregnant women felt regret and needed the treatment information. For the interviews with pregnancy, it was found that they wanted to terminate.
the pregnancy, required more information, and wanted to know whether there were something else going wrong. Based on the literature review, it was found that nurses were those who provided care, knowledge, and counseling (Table 3).

**Discussion**

This present study found that the problems identified affected the pregnant women’s physical and mental health and their families at first time they knew about fetus with CLP, especially, mental conditions of sadness, disappointment, concerns, stress, insomnia, and concerns about other abnormalities such as brain disorder. Also, they had no encouragement for being pregnant and taking care of the baby. Which the despondence of pregnancy and its care affected the fetus, including facial image of CLP baby at and after birth. This consistent with the study of Chuenwattana (9) who found that the prenatal diagnosis of cleft lip/palate with congenital disorders was undesirable and such bad news effected the emotions of pregnant women and their families as to make them felt disappointed, sad, stress, and concerns during pregnancy period which might influenced pregnant women health and their babies. The same study by Asplin et al (10) found 56 pregnant women with a detected fetal malformation and continued pregnancy having high anxiety levels and worries about the relationship with their husband. To deal with the problems and find ways to provide the best care, the patient must be supervised by an interdisciplinary team starting from pregnancy period and maintain its care continuously (8). The nurses of antenatal care ward were a part of an interdisciplinary team who served care, counseling, and coordinating after the prenatal diagnosis and information providing. This was to assist the pregnant women and their families could confront the crisis and able to adapt appropriately and accept the abnormalities of the fetus. This kind of treatment was very important for this case of pregnant women, fetus, and families which consistent with Chuenwattana (9) who found that the nurse gave the care for congenital disorder fetal and family to be able to adapt and accept the abnormality of fetus and encouraged them towards this pregnancy. They took in charge since abnormality diagnosis and continuous care for the whole pregnancy period which consistent with the study of Manakit (11) who found the information providing by care takers could help to create the understanding towards this abnormality, the understanding of integration treatment, and the ability to follow the treatment completely according to the manual, the suggestions providing by mentor of the family encouraging them to care, and being stereotype to get treatment clearly and procedurally. This is similar to the study of Asplin et al (10) found that the results highlight the importance of adequate support when fetal malformations are detected on ultrasound examination.

**Conclusion**

The clinical problems of pregnant women detected with fetal CLP included feelings of disappointment, sadness, and regret whether or not found other abnormalities and being stress in caring for pregnant and postpartum care. The best handling and treatment was to obtain care from the interdisciplinary team in order to help them and their families to face with the crisis, accept to the abnormality of the fetus and having alternatives, and select such the appropriate alternatives, including antepartum and postpartum care.
Table 2. The clinical problems of the participating pregnant women with fetal cleft lip/palate

<table>
<thead>
<tr>
<th>Resources</th>
<th>The clinical problems</th>
<th>Conclusions</th>
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| Medical record review            | 1) Gestational age at first pregnancy and fetal cleft lip/palate detection at 20 weeks of gestational age.  
2) Patients with a history of threatened abortion.  
3) Concerns throughout pregnancy period and antenatal care visits for all cases. Also, concerns with the fetal brain disorders. | - Late diagnosis threatened abortion  
- Concerns related to the conditions |
| Interviewing of nurses           | 1) Family’s immediate sadness following the diagnosis.                                  | - Sadness                                 |
|                                  | 2) Parents’ disappointment in regard to the health of the child.                       | - Disappointment                          |
|                                  | 3) Concerns about the disorders and fetus symptoms. Also, the fetus would not be perfect, and not growing. | - Concerns                                 |
|                                  | 4) Concerns about the behaviors during pregnancy period and normal pregnancy.          | - Insomnia                                |
|                                  | 5) Insomnia which might affect the standard body weight.                               | - Insomnia                                |
| Interviewing of pregnant women and families | 1) Shocked, sad, disappointed, unknown how to do, concerned about the look of the baby. | - Disappointed                            |
|                                  | 2) Concerns about money, expenses after postpartum which caused stress and having no will to care for pregnancy. | - Sad                                     |
|                                  | 3) The condition of threatened abortion.                                               | - Threatened abortion                     |
|                                  | 4) Concerns about how to handle with their baby, unable to breast feed after birth, not knowing of what the baby want, and requirements for more of cleft lip/palate information. | - Concerns after birth                    |
|                                  | 5) Concerns that the baby could not speak, surgical outcomes might not good enough, unable to recover from cleft lip/palate, insomnia, concerns about pregnancy, and felt shame and thought that was a sin. | - Required for more information            |
| Literature review                | 1) A study by Chuenwattana (9) found that the diagnosis of fetus with congenital disorders was undesirable and such bad news affected the mental conditions of pregnant women and their families to feel disappointed, sad, tense, and anxious throughout the pregnancy period; which might adversely affect the health of pregnant women and the fetus in case not to treat properly. | - Disappointment                          |
|                                  |                                                                                        | - Sad                                     |
|                                  |                                                                                        | - Stress                                  |
|                                  |                                                                                        | - Concerns                                |
| Related literature review        | Asplin et al (10) found 56 pregnant women with a detected fetal malformation and continued pregnancy that anxiety levels were high and worried about the relationship with their husband. The results highlighted the importance of adequate support when fetal malformations were detected on ultrasound examination. | - Anxiety and worries                      |

What is already known on this topic?
The pregnant woman with fetus CLP had the concerns about this problem but there was no in-depth study.

What this study adds?
To understanding more of the pregnant women who were detected with fetal CLP that they had the concerns on other abnormalities, behaviors, and after birth care.

Acknowledgements
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Potential conflicts of interest
None.

References
2. Ratanasiri T, Junthathamrongwat N,
Medical record review

1) Be provided the information and suggestion towards fetal abnormality from all doctors.
2) Be advised from the nurses of ANC Department and then transferred to Tawanchai Cleft Center in all cases.
3) Be advised about the diagnosis of the fetal by amniocentesis which found 5 cases did amniocentesis and 1 case did not since advanced gestation age, whereas recommended to do surgery after birth.
4) Found 4 cases accepted to do amniocentesis and found that 3 had normal chromosome while 1 had abnormality and decided to terminate the pregnancy.
5) Found 2 cases delivered in up-country and 2 cases in Srinagarind Hospital which every case had the treatment differently on age range treatment.

Interview of responsible nurse

1) When pregnant women firstly knew that fetuses had cleft lip/palate, they would feel shocked, sad, and unable to accept. They needed counseling from a physician and nurses who cared for pregnant women and worked at Tawanchai Cleft Center in order to have more acceptances and adaptation more and more.
2) No abstractly clinical evidence triggered of the pregnant women with fetal cleft lip/palate, however; only a counseling for each found problems of pregnant women and the coordination with related departments.
3) The department was in needed to trigger evidence which should be done systematically among related departments.

Interview of pregnant women with fetal cleft lip/palate and their families

1) 2 cases wanted to terminate the pregnancy.
2) 3 cases wanted more information of cleft lip/palate.
3) Wanted to know whether their babies would have the brain disorder and amniocentesis.
4) Wanted information from Tawanchai Cleft Center, including telephone number to contact with the center.
5) The pregnant women wanted to learn how to breastfeeding and support their babies to have the surgery as per the protocol.
6) After counselling and receiving the information from Tawanchai Center, they had less concerned.

Literature review

1) A study by Chuenwattana(9) found that the nurse had a role in helping pregnant women who had congenital disorders and their families to be able to adapt and accept the abnormality of the fetus and were encouraged for the next pregnancy. Starting from the diagnosis of fetal abnormalities and ongoing monitoring periodically throughout pregnancy by applying the six steps of Spikes which consisted of preparation, additional requirement assessment, knowledge and data providing, care with understanding, data conclusion, and future planning. All of these effectively support, the nurse were to give the taking care for the mental of the pregnant women with fetal congenital disorder and their families.
2) Manakit(11); suggested that knowledge gained from care taker created the understanding towards the disorder. And the treatment by process could be made for each part but not overall. The treatment made the understanding of the integrated treatment which helped to follow-up treatment procedures according to the manual. To obtain advice from mentors have encouraged families to give the care.

Table 3. The results after diagnosed that pregnancy with fetal cleft lip/palate, and being advised by a team of doctors and nurses

<table>
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| Medical record review | 1) Be provided the information and suggestion towards fetal abnormality from all doctors.  
2) Be advised from the nurses of ANC Department and then transferred to Tawanchai Cleft Center in all cases.  
3) Be advised about the diagnosis of the fetal by amniocentesis which found 5 cases did amniocentesis and 1 case did not since advanced gestation age, whereas recommended to do surgery after birth.  
4) Found 4 cases accepted to do amniocentesis and found that 3 had normal chromosome while 1 had abnormality and decided to terminate the pregnancy.  
5) Found 2 cases delivered in up-country and 2 cases in Srinagarind Hospital which every case had the treatment differently on age range treatment. | - Be advised from the physicians and nurses towards babies’ abnormality and chromosome detect. - Be advised after giving birth. |
| Interview of responsible nurse | 1) When pregnant women firstly knew that fetuses had cleft lip/palate, they would feel shocked, sad, and unable to accept. They needed counseling from a physician and nurses who cared for pregnant women and worked at Tawanchai Cleft Center in order to have more acceptances and adaptation more and more.  
2) No abstractly clinical evidence triggered of the pregnant women with fetal cleft lip/palate, however; only a counseling for each found problems of pregnant women and the coordination with related departments.  
3) The department was in needed to trigger evidence which should be done systematically among related departments. | - Sadness and unable to accept. - Required information and counseling. |
| Interview of pregnant women with fetal cleft lip/palate and their families | 1) 2 cases wanted to terminate the pregnancy.  
2) 3 cases wanted more information of cleft lip/palate.  
3) Wanted to know whether their babies would have the brain disorder and amniocentesis.  
4) Wanted information from Tawanchai Cleft Center, including telephone number to contact with the center.  
5) The pregnant women wanted to learn how to breastfeeding and support their babies to have the surgery as per the protocol.  
6) After counselling and receiving the information from Tawanchai Center, they had less concerned. | - Wanted to end the pregnancy. - Wanted more information. - Wanted to know whether any other disorders. |
| Literature review | 1) A study by Chuenwattana(9) found that the nurse had a role in helping pregnant women who had congenital disorders and their families to be able to adapt and accept the abnormality of the fetus and were encouraged for the next pregnancy. Starting from the diagnosis of fetal abnormalities and ongoing monitoring periodically throughout pregnancy by applying the six steps of Spikes which consisted of preparation, additional requirement assessment, knowledge and data providing, care with understanding, data conclusion, and future planning. All of these effectively support, the nurse were to give the taking care for the mental of the pregnant women with fetal congenital disorder and their families.  
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7. Antenatal care statistic, Srinagarind Hospital. Khon Kaen: Faculty of Medicine, Khon Kaen University, 2015.


การกำหนดเป้าหมายด้านสุขภาพเพื่อการดูแลผู้ป่วยในโรงพยาบาลสรรพสิทธิ์ ท่องรวงศรี

จันทร์ องค์ศิริ, คุณศักดิ์ ประทุมพงษ์, พรหมณี ชาลีสิน, วานิช วินทวิช

เป้าหมาย: ความคิดเห็นผู้ดูแลผู้ป่วยของโรงพยาบาลที่เป็นไปตามที่ปรากฏในตลาดผู้บริโภคของประเทศ
การวิเคราะห์ผลการดำเนินงานของด้านสุขภาพ และการวิเคราะห์ผลการดำเนินงานของด้านสุขภาพ
รวมทั้งการวิเคราะห์ผลการดำเนินงานของด้านสุขภาพที่มีผลต่อผลการดูแลผู้ป่วยที่มีความต้องการ
ในการรักษาผู้ป่วยในโรงพยาบาลสรรพสิทธิ์ ท่องรวงศรี ที่มีการดำเนินการมาในอดีต

วัตถุประสงค์: เทียบเท่ากับเป้าหมายด้านสุขภาพของด้านสุขภาพที่มีการดำเนินการมาในอดีต

คัดเลือกและวิเคราะห์: การดำเนินการวิเคราะห์เป้าหมายด้านสุขภาพโดยมีการคัดเลือกวัตถุประสงค์ในการเรียนรู้และการวิเคราะห์

ผลการศึกษา: พบว่าด้วยการวิเคราะห์ความต้องการในการรักษาผู้ป่วยในโรงพยาบาล 5 ราย อยู่ในย่าน 32 จัดการด้วยโรคที่ 2 รายละ 0.1 สะพานเท้า พบว่ามีการทำงานจริงที่การรักษาผู้ป่วยในโรงพยาบาล 2) จัดการด้วยการดูแลผู้ป่วยอย่างดี 3) ผลการวิเคราะห์ใน การดูแลผู้ป่วยและคุณลักษณะ 3) ผลการวิเคราะห์ใน การดูแลผู้ป่วยและคุณลักษณะ 4) การควบคุมการรักษาผู้ป่วยที่ดีที่สุด

ผลการวิเคราะห์: ผลการวิเคราะห์ที่มีการดำเนินการมาในอดีต และการวิเคราะห์ที่มีการดำเนินการมาในอดีต โดยมีการวิเคราะห์ใน การดูแลผู้ป่วยและคุณลักษณะ 3) ผลการวิเคราะห์ใน การดูแลผู้ป่วยและคุณลักษณะ 4) การควบคุมการรักษาผู้ป่วยที่ดีที่สุด

สรุป: ปัจจุบันการดำเนินการในด้านสุขภาพที่มีการดำเนินการในโรงพยาบาล ที่มีการที่ดี ได้เป็นที่ประณีตที่ดี กับการเฝ้าระวัง ที่ดี โดยมีการวิเคราะห์ใน การดูแลผู้ป่วยและคุณลักษณะ 3) ผลการวิเคราะห์ใน การดูแลผู้ป่วยและคุณลักษณะ 4) การควบคุมการรักษาผู้ป่วยที่ดีที่สุด

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