Brief Communication

The Experience of One Obstetrician in a Rural Area in Emergency Obstetrics

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Chiangrai, a northern province of Thailand has continued to find challenges in providing emergency obstetric care similar to other rural areas in developing countries. However, several intervention campaigns aiming to prevent and minimize emergency obstetrics-related problems were carried out successfully in the local community during 1974 to 2003. These campaigns included: (1) birth reduction campaign with a decreased birth rate from 3.2% to 1.0% between 1974-2003, (2) HIV vertical transmission rate reduction campaign resulted in a decrease from 42% in 1994 to 5.75% in 2003, (3) perinatal morbidity and mortality reduction campaign through establishing supervision committees and setting up standard guidelines for proper treatment and, (4) a campaign to eliminate violence and sex abuse of women and girls through setting up 'One Stop Crisis Center'. One of the key successes behind the campaigns' positive outcome was likely to result from a high level of coordination and collaboration among specialists, non-specialists and local volunteers. Limitations in the number of obstetricians and related facilities will continue in rural areas. Therefore, alliances among multi-disciplinary teams are viewed as a vital necessity for emergency obstetric care in rural areas.

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I graduated from Siriraj Medical School, Mahidol University in 1969. After a one year internship and one year residency training, I returned to work in my hometown province– Chiangrai as a physician in 1971. At that time, Chiangrai Provincial Hospital consisted of 300 beds with 6 physicians including one executive. There was no formal department and every physician rotated between jobs and shifts. I and my pediatric colleague proposed to split the OB-GYN and pediatric ward into two departments in 1974. In 1978, I became the first chief department of OB & GYN department.

Family Planning Campaign

Due to the increasing rate of population, which was more than 3% at that time, I decided to train in 'Interval Tubal Sterilization' at Ramathibodhi Hospital in Bangkok. After training I brought the Interval Tubal Sterilization technique together with other temporary family planning methods to Chiangrai province and began the family planning campaign. The campaign and continuous knowledge provided at the provincial level to encourage women to practice family planning resulted in the population growth reducing from 3.2% to 1.0% between the years 1973-2003. The health education provided along with the campaign also resulted in a reduction in the illegal abortion rate from unwanted pregnancies.

HIV Vertical Transmission Reduction Campaign

In the year 1986, there was an epidemic spread of HIV infection in Thailand, and Chiangrai province was one the top ten high-ranked HIV areas in the country. At that time I was the chief of the department of OB & GYN. Beginning in 1990, I proposed a project to provide anti-HIV blood tests using ELISA technique and HIV counseling in the antenatal care clinic. Before blood testing, every pregnant woman would have group counseling to let them know the benefits of blood testing. After counseling, we found that about 98-99% of pregnant women decided to have blood tests

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and treatments resulting in the reduction of the rate of HIV-infected pregnant women from a 7.6% high in 1995 to 1.6% in 2003. In 1990, the hospital also faced a problem of the vertical transmission of HIV infected pregnant women with a high rate of 42%. They found one of the major factors was likely to result from breast feeding. Therefore, we advised the HIV-infected pregnant mothers to use bottle milk instead of breast feeding and, in 1993, the transmission rate was reduced to 21.2%.

In 1997, the antiviral research was launched to further reduce vertical transmission with three major projects. The Perinatal HIV Prevention Trial (PHPT) was the co-operation research among the Ministry of Public Health (MOPH), Mahidol University, Chiang Mai University, and Harvard Medical School. The study aimed to develop a proper ZVD administration in order to reduce the vertical transmission from mothers to children effectively and economically. The details of these three projects are as follow:

1. The Perinatal HIV Prevention Trial-1 (PHPT-1) ran from 1997 to 2001. AZT was given to mothers infected with HIV at various periods of gestation, during labor, and postnatally to infants in order to reduce the rate of transmission. We were able to reduce the transmission rate to 7.86%.

2. The Region 10 project was implemented from 1997 to 2003. AZT was given to mothers for four to eight weeks prenatally and to infants for seven days. The result of the transmission rate was further reduced to 5.75%. Later, this regimen became the policy of the Ministry of Public Health in the year 2000 for practicing nationwide.

3. The Perinatal HIV Prevention Trial-2 (PHPT-2) was conducted during 2001 to 2003 after the success of PHPT-1. Giving one dose of Niverapine to mothers in labor and giving one dose of Niverapine to infants postnatally resulted in the reduction of infection rate. It was reduced from 6.5% to 2% in the group given Niverapine to mothers and to 1.3% among the group given Niverapine to both mothers and infants. The PHPT-2 has been chosen as the protocol to prevent HIV vertical transmission to the present time.

Maternal and Child Health

The hospital conducted a situation analysis on obstetrics-related problems affecting Chiangrai province's maternal and child health and found that perinatal morbidity and mortality, low birth weight (LBW) and birth asphyxia (BA) were among the concerns. Recognizing that these problems could be minimized, as the director of the hospital, I encouraged and supported having a Chiangrai Hospital Maternal and Child Committee which comprised obstetricians, pediatricians, and registered nurses who worked in various units such as antenatal clinic, labor room, post partum wards, NICU, nursery, and pediatric OPD and meeting every third Thursday during 12.00 am. to 1.00 pm. to analyze and evaluate problems concerning maternal and child health. This regular meeting would solve the problems faced within the service system. The standard protocol for maternal and child health was set to ensure patients received good quality care. Some of the standard protocols include: intra-departmental guideline to take care of neonatal hypothermia, the standard for precise prediction for the expected date of confinement, Apgar score assessment, post partum assessment and monitoring guidelines for post-dated delivery cases, a standard system for pediatricians and obstetricians to monitor low birth weight infants by using Ballard's score, setting up protocols to monitor very low birth weight infants (under 1000 grams) admitted in newborn nursery, setting up standard perinatal maternal conference, and standardization of techniques such as prevention of shoulder dystocia, diagnosis of preterm deliveries and breech deliveries.

Academic Support

The review of the hospital's Maternal and Child Committee also found that high risk pregnancy cases admitted at Chiangrai hospital are among patients referred from either community hospitals or health centers. Therefore, the maternal and child health committee was expanded from intra-hospital to provincial level in 2000 aiming to prevent or minimize maternal and child health problems at the grass roots level. This provincial committee provided many activities such as scientific conferences in maternal and child health twice a year and perinatal and maternal conferences four times a year. Case studies from community hospitals and provincial hospitals are presented and discussed and, a protocol of treatment was set to ensure having standard services and treatments. The academic support was provided to staff of community hospitals by experienced obstetricians, pediatricians, and registered nurses. Lecture topics included setting up standard ANC clinic and labor room, health promotion for 0-5 year old children, proper referral system, prevention of vertical transmission of HIV, analysis of statistics twice a year, and the provision of clear indicators and assessment forms.

Clinic for Sexually Abused Women

A multi-disciplinary team was set up to provide services to sexually assaulted women in 1997. In 1999, the task was expanded to cover the severely abused children. One Stop Crisis Center (OSCC) was founded on the 17th of December 2001 to reduce the victims' emotional stress. At the center, a multidisciplinary team comprised of physicians, nurses, psychiatrists, social workers, attorneys, policemen, provincial welfare officers, social improvement officers, and NGOs work together to provide a holistic care for women and children to fully recover and return to their normal life.

All the activities above were part of my experiences in Chiangrai Hospital between 1971 to 2003 as an obstetrician, as chief of department of OB&GYN and as director of the hospital. These tasks could not have been successful without my great team in Chiangrai Hospital, my supervisors, volunteers, and the local community. I wish to thank everyone who shared in this success, especially The Royal Thai College of Obstetricians and Gynaecologists who nominated me to receive one of only six Distinguished Community Service Awards for Emergency Obstetric Care being made for 2004 by FIGO.

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