A STEP TOWARD REDUCING MATERNAL AND INFANT MORTALITY RATES IN CAMBODIA

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I chose to focus my project on pregnancy healthcare because I am a Science Major. In my preliminary research I found that Cambodia has high rates of maternal and infant mortality. As a result, the purpose of my project was to learn about the status of pre- and postnatal health in Cambodia in order to create an informational pamphlet for mothers, midwives, and doctors. I thought that by providing accurate information in a readable format, more people might be able to reduce the mortality rates.

LITERATURE REVIEW

Pregnancy and birth in Cambodia is a dangerous process – so much so, that it is referred to as "crossing the river," an act which is quite a dangerous undertaking (White, 2002). The maternal mortality rate in Cambodia is 450 deaths per 100,000 live births (Chatterjee, 2005). Maternal deaths account for 18% of deaths in women aged 14-49 years in Asia (Yanagisawa, 2004) which is among the highest in the world (White, 2002). Infant mortality rates are 106 deaths for every 1,000 live births (Chatterjee, 2005), and the probability of dying at less than five years old in Cambodia is the highest in the World Health Organization's (WHO) Western Pacific Region, at approximately 143 deaths for every 1,000 live births (WHO, 2005; Yanagisawa, 2004).

Attempts to improve the maternal and infant survival rates are occurring. For example, there is a community-led safe motherhood advocacy program in the province of Ratanakiri (Riddell, 2006). The program is offered by Health Unlimited which is trying to "tackle preventable maternal (and, indirectly, child) mortality and morbidity through increasing levels of community participation in defining health policy and practice." Delivery Life Support is another program that is developing an "indigenous chain-of-survival network" that will manage complications during delivery and reduce maternal and infant mortality rates (Chandy, 2007).

A woman's diet during pregnancy is extremely important. Poor nutrition is responsible for weakness, anemia, increased risk of maternal mortality, miscarriages, stillbirths, and disabilities in newborns (Klein, Miller & Thomson, 1995; Werner, Thuman & Maxwell, 1992). Expectant mothers should eat multiple servings daily from each of the five main food groups: grains, vegetables, fruits, dairy, and proteins (CHCC, n.d.). Variety is also an important component of nutrition during pregnancy (Klein et. al, 1995), as it increases the likelihood of getting nutrients from each food group.

The basic Cambodian food staples are rice, fish, vegetables, and fruit generally. Beef, pork, poultry, and eggs are foods eaten only on special occasions, unless the family can afford to have them more often. Fish is "fundamental for the livelihood and food security of large population groups in the productive and densely populated river basins in Asia," (Roos, Chamnan, Loeung, Jakobsen & Thilsted, 2006). Roos et. al (2006) conclude that fish could contribute, roughly, "5-15% of the total vitamin A needed to meet the daily recommended intake of the whole population."

Folic acid plays an important role in the development of the fetus during pregnancy. Folic acid supplementation is most closely associated with the prevention of neurological defects which occur in the first month of pregnancy (CDC, 2005). In fact, about three thousand pregnancies per year in the United States result in infants born with neurological defects (MOD, 2005). It is recommended that both pregnant and non-pregnant women take a daily supplement containing anywhere from four-hundred to six-hundred micrograms of folic acid (MOD, 2005; FSA, n.d.; Medscape, 2003; CHCC, n.d.; CDC, 2005). Daily diet can also be an important source of folic acid. Some excellent sources are: asparagus, turnip greens, okra, cooked dry beans, and liver (Medscape, 2003). Other good sources are: broccoli, spinach, green peas, fresh beets, rice, and tofu (Medscape, 2003). Fruits like oranges (MOD, 2005) and pineapple (NYSDH, 2007) are also sources of folic acid.

PROJECT DESCRIPTION

After researching various topics for my project, I chose to focus my pamphlet on nutrition during pregnancy, the importance of consuming folic acid during pregnancy, beneficial behaviors for pregnant women, important preparations for remote delivery, and symptoms during pregnancy that warrant hospital visits. I adapted the topic areas so that they would be relevant to resources found in Cambodia. I also secured funding to purchase infant caps.

At the Cambodian Women's Crisis Center (CWCC), I presented my project to both staff members and clients. Translated copies of my pregnancy healthcare pamphlet were passed out to the women, and I guided them through each section with the help of a translator. I also used large, laminated sheets with pictures to communicate better. My presentation was interspersed with questions about the number of children each woman had, where they were born, and Cambodian cultural practices during pregnancy. Through their answers, the women provided valuable information for current and future McMaster projects. The infant caps were distributed to the clients. I left extra infant caps and copies of the laminated picture sheets with the CWCC for help with future clients.



RESULTS

The process of presenting at the CWCC through a translator went smoothly, and my translator, Lan, was a great help. The questions that I asked allowed me to learn more about pregnancy in Cambodia. Pregnancy and childbirth are special times in Cambodian homes, and they are often accompanied by traditional practices and medicines. Pregnant mothers are encouraged to eat sour fruits (like mangoes) and soups when pregnant. They might also take traditional medicines in lieu of modern ones which are often too expensive. Cambodians prepare for the birth of their children much like we do in the United States - by purchasing clothing, blankets, and other items that the child will need. Finally, when asked about changes in behavior or daily activities during pregnancy, many of the women stressed the differences between the rich and poor. Wealthier Cambodians can afford to stop working once they become pregnant; however, the women that I spoke with are not wealthy and must continue to work until the baby is born.

REFLECTIONS

To reflect upon my McMaster trip, I used the Active Reviewing Cycle by Roger Greenaway: Facts, Feelings, Findings, and Future. During my time in Cambodia I learned many facts. Some of those facts include: the social and economic devastation of Cambodia by the Khmer Rouge, the disparity of wealth in urban areas, and the unsafe state of pregnancy and childbirth.

As I gained a better understanding of the devastation in Cambodia as a result of the Pol Pot regime, I felt sorrow and shame. It was hard for me to comprehend the magnitude of the situation even after doing research and seeing the results for myself. The blatant disparity of wealth in urban areas produced similar feelings. I thought I had an idea of what poverty was, but I did not. I also felt anger at the fact that a small minority were obviously thriving, while their countrymen were dying of starvation and simple medical problems.

Bearing witness to the condition of pregnancy and childbirth was also sobering. Although we deal with complications of childbirth in the United States, the situations are usually taken care of with relative ease. In Cambodia, issues that we would consider simple often cause death.

I found the state of pregnancy and childbirth to be somewhat better incountry than I had anticipated from my research. Although the situation is far from ideal, it is becoming more and more common to give birth in clinics and hospitals where slightly more advanced medical care can be found. It also seems that the government is trying to help improve the well-being of mothers and children in Cambodia.

As an aspiring member of the medical field, this experience will help me to be a more globally-aware professional. I already appreciate the amenities and technology that will be available to me. In particular, the problemsolving skills I acquired while working in Cambodia will help me to be a more competent and efficient healthcare provider.

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