Premature baby

Life, Childhood



A new medical practice for premature babies -Touching or No Touching- In the world, more than 300 thousand people are born in a day, but 10 percent of them are born as premature babies. The premature birth rate has increased by about 36 percent since the early 1980s, and many of them have died. Fortunately the good news is that the survival rate of the preterm has increased remarkably due to improvements in neonatology, such as using incubator transport. However, compared with in utero transport, incubator transport, based on separation between with mother and infants, is not natural thing, and it still has risks.

Incubator transport for preterm still has some known disadvantages including infant instability by lack of adequate systems for securing the infant, and separation of mother and infant. Even though it has some risk, it has been known as an optimal practice for care of extensible number of premature infants. According to Statehealthfacts. org, in the United States in 2009, there were 502, 306 preterm births born. This is 12. 2% of births in the United States, 2009. Table. 1 Number of births, number of preterm births, and preterm births as a percent of all births in the United States 2009. Normal full term babies are born at 38 weeks.

Babies born before 37 weeks are defined as premature babies, and those born between 24 and 29 weeks are 'extremely premature'. They usually have less weight than 1. 5kg (3. 3lb). And all babies born with less than standard birth weight, 2. 1kg (4lb) are at risk. Therefore, babies born early need special care and monitoring to help them to gain weight. To reduce disadvantages of incubators and improve care preterm babies, 'Kangaroo

care,' a new medical practice for preterm babies, was introduced and being conducted in some united states medical facilities.

Kangaroo care is also known as kangaroo mother care, kangaroo baby care, and skin to skin care. Although the name varies, the concept is that holding an infant, naked except for a diaper and hat, against the bare chest of an adult for the purpose of providing the infant with a natural thermal environmental, nurturing touch, and enhanced opportunity to breast-feed. "Although numerous studies have explored the value of kangaroo care for premature or stressed newborns, the literature informing the effects of kangaroo care to people is scarce" the study by Janice Collisons said.

Mostly, the incubator as a present medical system is being used. The current predominant model of neonatal stabilization like incubators involves placing the infant in an open warmer immediately after delivery. This practice immediately separates the mother and infant during a crucial period of extra uterine adaptation, and may be a venue for delayed neonatal physiological adaptation, reduced breast-feeding, and impaired maternal infant bonding. The goal of my research is to know the benefits of kangaroo care as a stabilization method for preterm infants, and to figure out how it contributes thehealthof infants.

In March of 2010, a mother gave birth to a premature infant son, named Jamie. She was told that the baby had died despite the best efforts of the medical staff. She was given a chance to hold and cuddle him on her chest in order to say goodbye. When placed on her chest, his breath began coming in short bursts, and his parents and the medical staffs were astonished when Jamie opened his eyes with stable breathing. Jamie is now a normal active 2

year old boy. What this mother and child experienced is kangaroo care because it is similar to the same care a baby kangaroo receives in its mother's pouch.

Doctor, Susan Ludington says "many people don't understand this situation, but there are eight reports of other babies revived by kangaroo care. The mother can stimulate the baby to live. I think the Kangaroo care helped" In fact, this method had been used in Colombia. Due to increasing mortality rates in Bogota, Colombia, in 1978, Dr. Edgar Rey introduced kangaroo care to alleviate the shortage of caregivers and lack of incubators. This care was found to be an inexpensive and very beneficial experience to babies in Bogota, Colombia.

The mortality rate finally fell to 30 percent from 70 percent. Most studies have proven that Kangaroo care has positive impacts on babies and their parents; some studies have proven there is no change; but no study has proven that kangaroo care has hurt either parent or baby. By offering it to newborns, they have a stable heart rate, more regular breathing, improved oxygen saturation levels, nostress, longer periods of sleep, more rapid weight gain, and earlier hospital discharge. The first benefit of the kangaroo care is that preterm babies can have longer periods of sleep.

Researchers have come a long way in determining the major cause of colic. The common conclusion in 1999 is that colic is caused by a baby's inability to transition from one sleep state to another – like from an alert state into a sleep state and back again. Kangaroo care performed in a quiet, low lightenvironmentwith any baby has been proven to reduce crying and help the baby learn to transition from one sleep state to another. A study done by

Patricia Messmer in 1997 found a significant increase in sleep time for the neonates during Kangaroo care.

The kangaroo care can relieve the pain of preterm babies during treatment such as blood test, injection of medication, and several physical tests which give significant pain to the babies. Because the premature babies are really vulnerable to surroundings, doctors need to take blood samples to check their health every day. They usually take 3cc amount of blood from the babies. The volume of blood drawn (3cc) from babies is proportionate to that drawn (400cc) from adults. How painful it is for the babies to stand.

The experiment that measured the pain level to premature babies from the blood test was conducted while kangaroo care procedure. The result of the experiment showed that the babies felt less pain when they were on mother's chest. According to the article 'Kangaroo care is effective in diminishing pain response in preterm neonates', it concludes 'Kangaroo care was effective in significantly decreasing pain response on the behavioral components of a validated composite measure of pain in preterm babies.

Given the many invasive procedures that are part of clinical care in preterm babies, KC may be a safe analgesic alternative in neonates in whom it is feasible and with mothers who are comfortable providing KC for painful events' The newest studies that are being done in Sweden and other countries concentrate on full term babies in respiratory distress. They take these babies, who would normally be put on respirators, and place them on the mom's chest immediately after birth in the Kangaroo Care position. Babies stayed on mom until the respiratory distress was gone - within 48 hours for most babies.

Oxygen hoods and cannulas (small tubes) were used if needed. In preterm babies, the effects of Kangaroo Care on these functions are just as dramatic. In 1998, Dr. Susan found a four-fold decrease in apnea during Kangaroo Care and ventilated babies were able to tolerate transfer and position changes without increased oxygen requirements. In 1997, GM Cleary, et al concluded there was no increase in bradycardia(slow heart rate –below 60 beats per min) episodes during Kangaroo Care. In 1998, Gay Gale and Kathleen Vandenburg concluded that the heart rate was more regular for Kangarooed infants.

All-in-all, the baby fared much better when placed in Kangaroo Care. "With my own ventilated preemie (1 pound 12 ounces at birth) I noticed a 50% reduction in oxygen requirements, no apneas, more stable heart rate, and more spontaneous respiration when I held her skin-to-skin." Holly Richardson concluded that more rapid weight gain was observed in Kangarooed infants. Kangaroo care allows the baby to fall into a deep sleep by conserving their energy for far more important things. This increased weight gain also leads to shorter hospital stays.

Kangarooed infants can have as much as a 50% shorter hospital stay than babies who are not kangarooed. This means less expense for the parents and children. In 1990, Dr. Susan Ludington demonstrated that mothers showed thermal synchrony with their babies. A recent study placed babies in Kangaroo Care position on the mother's chest and temperatures were taken periodically of both the mother's chest and the baby. The study revealed that when the baby got cold, the mother's body temperature would increase to 'warm' the baby up. The reverse was also true.

Given a suggestion of "Your baby looks warm to me" by a nurse, the mother's chest temperature would decrease within minutes to compensate. Extra blankets and monitoring of baby's temperature might be needed when Dad or others practice Kangaroo Care, but in 1997, Karl Bauer wrote that one hour of skin-to-skin contact (Kangaroo Care) was no cold to preterm infants. In 1998, Papi A Gomez found infants in Kangaroo Care for more than 50 minutes were 8 times more likely to breast feed spontaneously. Kangaroo Care allows for easy access to the breast, and the skin-to-skin contact increases milk let-down.

A receiving blanket, strategically placed to catch extra milk is extremely helpful - especially if the baby is unable to breast feed. Otherwise, some doctors argue that there is risk of a bacterial infection if vulnerable infants come out from incubators. However, by using kangaroo care the immunity of premature babies is built up so they are not easily affected by any bacterial infection. Why? It's because of the breast milk, containing lymphocytes and macrophages that produce antibodies. The kangaroo care facilitates an easy access breast feeding for both moms and babies than incubators.

As long as mothers are in good health and can produce healthy breast milk, the premature babies' immune system will develop. Richardson proposed that brain development is more rapid in the baby who benefits from Kangaroo care. Her research reveals that 'alpha waves double in a baby being "kangarooed" versus a baby in an incubator. Alpha waves are the brain wave patterns associated with contentment and bliss. Delta brushes are a pattern formed when tracking brain activity that represents the creation of new neural synapses.

Delta brushes are higher during Kangaroo care than during incubator care. '
Through some cases and studies, kangaroo care can contribute to give an efficient treatment, as well as a miracle revival, to premature infants as long as it comes into wide use in a medical institution rather than using of artificial facilities which give stress to vulnerable infants. These benefits of kangaroo care are basically from mother's love and communication. The incubator transport may give the stable care to the babies but it's not perfect and not natural to them. It cannot be compared with mother's bosom.

Some hospitals, combining both this touching system and the incubator, experience the positive results from the kangaroo care. However, there is still a huge lack of the knowledge of the kangaroo care. How to encourage people to know about the kangaroo care? Telling is the best way to spread it out to people. When people become parents with knowledge of the kangaroo care, they may use this touching in their home. It's easy for every parent to use. Parents should know that their love and touching are what vulnerable babies need, not a cold and impersonal facility.

Bibliography Articles Barb Morrison. " Kangaroo Care: ' Natures Best for our Little Ones'" (2006)Web Feb 22. 2012 < http://www. preciousimagecreations. com/presentations/kangaroocare. pdf> Maria Blois. "Hold Me Close: 'Encouraging essential mother/baby physical contact'" (2007) Web Feb 22. 2012 < http://www. babywearinginternational. org/Blois research summary. pdf> Dieter Sontheimer. " Kangaroo Transport Instead of Incubator Transport" (2004) Web Mar 11. 2004 < http://pediatrics. aappublications. org/content/113/4/920. full > Celeste Johnson. Kangaroo care is effective in diminishing pain response in preterm neonates" (2003) Web Mar 11. 2012 < http://archpedi. ama-assn. org/cgi/reprint/157/11/1084 > Leornard A. Herzenberg. " Soluable CD14 enriched in colostrum and milk induces B cell growth and differentiation" (2000) Web Mar 20. 2012 < http://www. pnas. org/content/98/2/603. full> Books Ludington-Hoe. Kangaroo Care: The Best You Can Do for Your Premature Infant. " New York: Bantam Books(1993). Web Feb 22. 2012 Bergman. "Kangaroo Mother Care". Geddes Productions (2003). Web Feb 22. 2012 Web Mhaire Fraser. Mom Uses Kangaroo Care to Revive Child Pronounced Dead. " Care2 Make a Difference. Web. 22 Feb, 2012 Holly Richardson. "Kangaroo Care: Why Does It Work?" Midwifery Today. Web. 22 Feb, 2012 Krisanne Larimer. " Kangaroo Care Benfits" Premature Baby. Web. 22 Feb, 2012 KaiserFamily. " United States: Number of Birth, 2009" " United States: Number of Preterm Births. 2009" " United States: Preterm Births as a Percent of All Births, 2009" Statehealthfacts. org. Web Mar 14, 2012 Jane Sheppard. "Breastfeeding for a strong immune system". Web. 20 Mar, 2012 Rebecca M. Pugh. " Supporting the birth that is right for you". Web. 20 Mar, 2012