Kangaroo Mother Care [1]

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Physician researchers Edgar Rey Sanabria and Héctor Martínez-Gómez developed the Kangaroo Mother Program in Bogotá, Colombia, in 1979, as an alternative to conventional incubator treatment for low birth weight infants. As of 2018, low birth weight and its associated complications are the leading causes of infant death, especially in developing and underdeveloped countries where access to technology and skilled healthcare providers is limited. Kangaroo Mother Care is a simple and low cost method for treating low birth weight infants. Even though researchers developed the Kangaroo Mother Care method for infants born in hospitals with limited resources, they demonstrated that the method could be just as effective as conventional treatments. Kangaroo Mother Care changed the standard of care for low birth weight infants, making life-saving medical treatments accessible to thousands of infants in developing and undeveloped countries.

According to the World Health Organization or WHO, complications associated with low birth weight cause between 60 and 80 percent of newborn deaths around the world, making it the leading cause of infant death as of 2018. A low birth weight infant weighs less than 2500 grams or 5.5 pounds, regardless of gestational age. Although independent of gestational age, low birth weight is often associated with prematurity, or birth that occurs before thirty-seven weeks of gestation [4], because those infants do not spend as much time growing inside the pregnant woman’s womb [5]. Low birth weight infants can experience complications such as the inability to maintain body temperature, difficulty breathing, difficulty gaining weight, long term problems with brain function, and sometimes death as a result of those complications.

In developing and underdeveloped countries, low birth weight is a common problem. Around 15.5 percent of infants born worldwide are low birth weight, but almost all of those births occur in developing and underdeveloped countries with limited medical professionals and modern technology. According to researchers, one potential cause of the high death rate associated with low birth weight is limited access to conventional care and technology. That technology is widely available in countries such as the United States, but much less accessible in countries where low birth weight is more common. Conventional care for low birth weight typically involves placing infants in incubators to regulate their body temperature. It can also include other treatments like the use of nasogastric tubes which allow nurses to feed infants breast milk through the infants’ noses directly into their stomachs. Those treatments, although effective, are not available to most infants born in developing and underdeveloped countries due to the high cost of technology and the lack of skilled healthcare providers.

During the 1970s, researchers began to study the benefits of skin-to-skin contact between the mother and her newborn, which was a simple and low cost method of newborn care. In the neonatal unit at San Juan de Dios Hospital in Bogotá, Colombia, physician researchers Rey Sanabria and Martínez-Gómez treated low birth weight infants. The researchers found it difficult to treat those low birth weight infants because they lacked technologies and resources that would keep those infants alive. The resources necessary to sustain low birth weight infants included incubators and other conventional care technologies, which were costly and difficult to obtain. In 1978, Rey Sanabria and Martínez-Gómez developed a new method for treating low birth weight infants in their hospital and called it the Kangaroo Mother Program. Their method included skin-to-skin chest contact between a mother and her infant, exclusive breastfeeding, which meant using breastfeeding as the primary method for feeding infants, and early discharge from the hospital. The method was referred to as the Kangaroo Mother Program because the constant skin-to-skin contact was inspired by the gray kangaroo, an animal that carries its baby in a pouch on the front of its body. Between 1979 and 1981, over 500 infants in Bogota received Rey Sanabria and Martínez-Gómez’s new treatment, and the researchers reported that infant survival rates tripled as a result. Later, Rey Sanabria and Martínez-Gómez’s method was officially termed Kangaroo Mother Care.

In the 1980s, Rey Sanabria and Martínez-Gómez’s Kangaroo Mother Method gained media attention in Europe as news networks filmed infants strapped to their mothers’ chests and reported on dramatic improvements in survival rates. Rey Sanabria and Martínez-Gómez originally reported their study in 1983 in conjunction with United Nations International Children’s Emergency Fund or UNICEF. In 1985, neonatal researchers Andrew Whitelaw and Katharine Sleath traveled from London, England, to Colombia to run their own analysis of the method’s effectiveness. In 1985, Whitelaw and Sleath published their results in The Lancet, a peer-reviewed medical journal. Whitelaw and Sleath found that the kangaroo position and early discharge were effective in treating low birth weight infants at the Columbian hospital where there was little conventional equipment. They did not recommend the treatment over conventional methods used to improve the health of infants in well-funded hospitals. Whitelaw and Sleath did, however, emphasize the psychological benefits of the Kangaroo Mother Method, including improved bonding between a mother and her infant.

After the Kangaroo Mother Method became widely publicized, physicians implemented versions of the method all over the world. In October 1996, thirty-six participants from fifteen countries gathered in Trieste, Italy, for the first international Kangaroo Mother Care conference. They evaluated the effectiveness of the treatment in a range of different scenarios, such as varying infant weight categories, severity of complications, and types of hospitals at which the infants were being treated. At the meeting,
Researchers are also studying the role of father figures in Kangaroo Mother Care, as well as the long term outcomes of implementing the treatment method.
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