

LOW COST MOTHER FRIENDLY KANGAROO MOTHER CARE (KMC) CHAIR DESIGNED BASED ON A NEED BASED SURVEY

Authors : Ashish Jain DM, Jitendra Singh, DCH, Balraj Yadav, DCH , Veena Devgan, MD

Institution/ Affiliations : Neonatology Division, Hindurao Hospital, Delhi -110007

Corresponding Author : Dr. Ashish Jain, Neonatologist, Department of Pediatrics, Hindu Rao Hospital; Malka Ganj, Delhi – 110007 Email: drashishjain2000@yahoo.co.in

Tel: 9810694789

Low cost Mother Friendly Kangaroo Mother Care (KMC) Chair designed based on a need based survey :

Ashish Jain, Jitendra Singh, Balraj Yadav, Veena Devgan

*Neonatology Division, Department of Pediatrics, Hindu Rao Hospital, Delhi – 110007

Background: KMC is a modality of care by skin to skin contact (STS) in LBW babies and a standard of care. It should be made doable by using minimum logistics. However, in some situations like overcrowding, post caesarian , step-down area, babies needing frequent monitoring and NICU care a well designed chair may prove beneficial and help practicing KMC. We designed a low cost mother friendly KMC chair at our Hospital.

Methodology: A need based survey was performed amongst mothers providing KMC. It consisted of both the open ended and question with options. Based on the responses and inputs from experts a design was conceptualized. The design was discussed with the sofa/chair manufacturing cottage industry. The tailor and welder were also consulted and for designs of the built-in KMC cloth and the side platforms for feeding utensils respectively. The product was supervised and revised several times with respect to economy, safety and optimal design. The cost of the chair was 4500/- .

Design Details/specifications: (All measurements in cm) : Basic design was of three segments, with 2 movable parts (inclining back and the foot rest) and sitting seat. The height and unfolded full measurements were 45 and 161 respectively. The base was of 74/45. The measurements (L/W) of back, setting base and footrest were 52/45, 52/53 and 56/52 respectively. The diameter of moulds for the speakers and the head rest were 7 and 4 respectively. The 2 built-in KMC cloths, and 3 velcro strips used measured 78/40 and 50/2.5. The side platforms for the feeding utensils measured 11.5/22 and had sockets for the placement of cup .The area for storage of the clothes under the chair was 48X74X24 (85258 cubic cm).The chair was constructed with fabricated polished iron, good quality sponge and ragzine.Sharp edges were avoided in the design for the safety.

Experience: Currently Hindu Rao Hospital and Cradle Hospital, Gurgaon are using the chair. Mothers and staff are satisfied with the same. There is a need and scope for improvement on the design further, by conducting a structured detail survey on the mothers using the chairs.

