

Can Physician Champions Improve Kangaroo Care? Trends over 5 Years in Rural Western India

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Introduction: In 2013, approximately 2.8 million children worldwide died within the neonatal period. India is at the epicenter of this tragedy, accounting for one-third of all neonatal mortalities. Prematurity and/or with low birth weight are the leading cause of neonatal mortality and India has the highest number of neonates born preterm and weighing less than 2,500 grams worldwide. It is estimated that Kangaroo Care can avert up to 48% of all neonatal deaths among premature babies by 2025. However, the promise of Kangaroo Care as a low-cost, safe, and efficacious intervention to reduce neonatal mortality in India has not been realized due to suboptimal implementation. Physician champions can improve Kangaroo Care implementation, but the magnitude of their impact is unknown.

Methods: A retrospective cohort study of 648 infants identified using clinical data from a NICU located in rural western India. Physicians who led Kangaroo Care training sessions with neonates and coached peer healthcare professionals were considered champions. Two Kangaroo Care champions were on staff full-time from January 2010 through June 2011, part-time from July 2011 through June 2012, and absent thereafter. We examined the effect of the withdrawal of physician champions on overall use using logistic regression, time to initiation using competing risk cox regression, and intensity using linear regression models of the two main components of Kangaroo Care, skin-to-skin care and breastfeeding, separately.

Findings: In comparison to when Kangaroo Care champions were present, their absence was associated with a 45% decrease in the odds of receiving skin-to-skin care (95% CI: 64% to 17%), 38% decrease in the rate of initiation of skin-to-skin care (95% CI: 53% to 82%), and on average, 1.47 less hours of skin-to-skin care (95% CI: -2.07 to -0.86). Breastfeeding practices were similar across different champion environments.

Interpretation: Withdrawal of Kangaroo Care champions from neonatal intensive care unit in rural western India is associated with diminished administration, delayed initiation, and shorter duration of skin-to-skin care, but did not impact breastfeeding practices. Training healthcare workers and community stakeholders to become champions could help in scaling up and maintaining Kangaroo Care practices.

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