

RESEARCH LETTER

Promoting delayed umbilical cord clamping: an educational intervention in a rural hospital

AUTHORS

Gregorio Zuniga-Villanueva¹ Master of Science, Pediatrics Resident *, gregoriozv@gmail.com

Luis F Sanchez-Espino² Medical Doctor, Pediatrics Resident

CORRESPONDENCE

* Gregorio Zuniga-Villanueva gregoriozv@gmail.com

AFFILIATIONS

^{1,2} Tecnologico de Monterrey, Batallon San Patricio 112, Real de San Agustin, San Pedro Garza García, Nuevo León 66278, México

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FULL ARTICLE:

Dear Editor

The WHO recommends that in term and pre-term infants, born from either vaginal or cesarean births, who do not require positive-pressure ventilation, the umbilical cord should not be clamped earlier than 1 min after birth.¹ This practice, called delayed umbilical cord clamping, increases an infant's blood volume and birth iron stores. This results in increased iron status, hemoglobin and hematocrit in infants aged up to 6 months, and does not affect length of the third stage of labor nor increase the risk of postpartum hemorrhage in mothers.² Early umbilical cord clamping (less than 1 min after birth) is not recommended unless the neonate has asphyxia and needs resuscitation.³ Even though it has been suggested that delayed umbilical cord clamping might be particularly relevant in low-resource settings,⁴ to the best of our knowledge there has been only one study that explores this approach in a rural area (specifically in the Peruvian Amazon).⁵

We conducted a quality improvement project through a small educational intervention at a second-level hospital situated in a rural Mexican community to promote delayed umbilical cord clamping. Before our intervention the hospital's routine was that all neonates had their umbilical cord clamped immediately after they were delivered and, as we presumed, none of the staff related to the delivery room were aware of the WHO delayed umbilical cord clamping recommendations. Our methodology was simple: we gave a 1 h course explaining the procedure and its benefits. The course was taken by the entire staff, which included nurse students, nurse practitioners, medical interns, and pediatrics, obstetrics, and anesthesia residents, attendants and department heads.

After the educational intervention we recorded the number of births that had delayed umbilical cord clamping during a 3-month period. During this time we had a total of 221 births of which 63 of them were cesarean section deliveries (28.5%) and 158 were by vaginal delivery (71.5%). Delayed umbilical cord clamping was achieved in 147 births (including both cesarean and vaginal), which represented

66.5% of the total births.

The results were presented to the quality of care department of our hospital, who approved the project and decided to include delayed umbilical cord clamping as part of the hospital's standard of care. In order to implement this new policy and increase the number of births that receive delayed umbilical cord clamping the course will be repeated every 4 months, concurring with the arrival of new staff.

Delayed umbilical cord clamping is an easy, cost-free practice that has a positive impact on the health of children and their mothers, and it can be easily promoted and achieved through a small and simple educational intervention. This is of particular interest for healthcare professionals who assist births in rural communities, because improving the quality of care of their patients is a matter of just 1 minute. Our intention with this research letter is to raise awareness about delayed umbilical cord clamping, how this practice enhances health care, and how it can be successfully implemented in rural areas in order to encourage healthcare professionals to take action in this important change in practice. Future studies regarding delayed umbilical cord clamping in rural settings should focus on measuring its costs, barriers to implementation and impact in infant anemia to determine how it can influence improvements in current policies and quality of care.

Gregorio Zuniga-Villanueva and Luis F. Sanchez-Espino, Tecnologico de Monterrey, Nuevo León, México

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- 3 WHO. *Guidelines on basic newborn resuscitation*. 2012. Available: http://apps.who.int/iris/bitstream/10665/75157/1/9789241503693_eng.pdf?ua=1 (Accessed 27 May 2017).
- 4 United Nations Children's Fund, United Nations University, WHO. *Iron deficiency anaemia assessment, prevention, and control. A guide for programme managers*. 2001. Available: http://apps.who.int/iris/bitstream/10665/66914/1/WHO_NHD_01.3.pdf?ua=1 (Accessed 19 January 2017).
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