



ORIGINAL ARTICLE

# Impact of a Developmental Care Training Course on the Knowledge and Satisfaction of Health Care Professionals in Neonatal Units: A Multicenter Study



Rocío Mosqueda-Peña <sup>a,\*</sup>, David Lora-Pablos <sup>b</sup>,  
Abraham Pavón-Muñoz <sup>c</sup>, Noelia Ureta-Velasco <sup>a</sup>,  
María Teresa Moral-Pumarega <sup>a</sup>, Carmen Rosa Pallás-Alonso <sup>a</sup>

<sup>a</sup> Neonatal Unit, 12 de Octubre Hospital, Madrid, Spain

<sup>b</sup> Research Unit, 12 de Octubre Hospital, Madrid, Spain

<sup>c</sup> Administration and Documentation, Neonatal Unit, 12 de Octubre Hospital, Madrid, Spain

Received Dec 11, 2014; received in revised form Mar 11, 2015; accepted Apr 1, 2015

Available online 4 June 2015

## Key Words

continuing education;  
developmental care;  
evaluation;  
neonatal units;  
questionnaire

**Background:** The impact of health-related continuing education courses on knowledge acquisition and clinical practice is infrequently evaluated, despite higher numbers of people enrolling in them. The majority of health care professionals working in neonatal intensive care units (NICUs) have received no training in developmental care (DC). The purpose of this study was to determine whether participation in a theoretical-practical course on DC had an effect on the degree of knowledge possessed by professionals in general terms and with respect to neonatal intensive care. The relationship between course satisfaction and knowledge acquisition was also studied.

**Methods:** This was an observational multicenter study conducted in 20 neonatal units in Madrid. A pre- and post-course questionnaire evaluated both knowledge and satisfaction levels regarding the course on DC and the Newborn Individualized Developmental Care and Assessment Program (NIDCAP). We carried out a multivariate linear regression analysis to determine whether there was a correlation between knowledge gained and satisfaction level.

**Results:** A total of 566 professionals participated, with a 99% pre-course and a 90% post-course response rate. The mean rate of correct pre-course answers was 65%, while the mean rate of post-course correct answers was 81% ( $p < 0.001$ ). Results were similar at all levels of neonatal care (Level I: 64% vs 80%; Level II: 64% vs. 83%; and Level III: 65% vs. 81%). Scores on a scale of satisfaction from 1 to 5 were high (averages of above 4 for all lectures and workshops). Pre-course knowledge scores, but not satisfaction, significantly influenced post-course knowledge ( $\beta$  0.499;  $p < 0.01$ ).

\* Corresponding author. Neonatal Unit, 12 de Octubre Hospital, Avenida de Córdoba s/n 28041, Madrid, Spain.  
E-mail address: [romospe@hotmail.com](mailto:romospe@hotmail.com) (R. Mosqueda-Peña).

*Conclusion:* Previous DC knowledge among Madrid health care professionals was similar, regardless of the level of neonatal care. Course attendance significantly improved the rate of correct answers. Although course satisfaction was high, there did not seem to be a correlation between knowledge gained and satisfaction.

Copyright © 2016, Taiwan Pediatric Association. Published by Elsevier Taiwan LLC. All rights reserved.

## 1. Introduction

Given continuous advances and changes in the medical field, health care professionals increasingly enroll in continuing education courses to respond to the constant challenge to acquire and maintain skills.<sup>1–7</sup> There is an ever-growing number of courses aimed at professional improvement, and the demand for a minimum number of annual accredited refresher courses is also on the rise. However, despite the increase in courses offered, their actual impact on learning and clinical practice often passes unevaluated. In general, the degree of overall course satisfaction is assessed upon course completion, while the ultimate goal of the course, namely the acquisition of knowledge and skills that lead to an improvement in competence and professional output, is not evaluated. It would be interesting to see whether there is a relationship between the degree of learner satisfaction and knowledge gained. If learner satisfaction could be used to measure the course's impact on learning indirectly, it might be considered an adequate indicator. However, if this relationship cannot be verified, the degree of knowledge acquired in the majority of courses would go unmeasured, and the success of the course would remain unverified. Moreover, often the only professional demand made on course participants is simply proof of attendance.<sup>8</sup>

In recent years, developmental care (DC) has been receiving a lot of attention in the field of neonatology, as is the standardized program of personalized care which is known as the Newborn Individualized Developmental Care and Assessment Program (NIDCAP), developed by Als.<sup>9</sup> By DC, we refer to the care designed to promote neurosensory and emotional development in newborns while reducing stress during admission to the neonatal unit. DC includes modifying external stimuli (visual, auditory, tactile, and vestibular), clustering nursing care activities, positioning and containment, and reinforcing the bond between family and infant.<sup>10,11</sup> Several publications suggest that these methods have a positive impact on infant care.<sup>12–19</sup> However, the majority of health care professionals working on the neonatal intensive care unit (NICU) receive no training in DC in medical school, and very few receive any training during their period of specialization. In addition, as shown in the literature, there are vast differences in the application of DC.<sup>20,21</sup>

An educational program on DC was implemented in all of the neonatal units in the region of Madrid (Spain). An assessment of both participant satisfaction and pre- and post-course knowledge was included in the design of this continuing education program. The aim of our study was to determine whether the degree of knowledge possessed by

the professionals attending the theoretical-practical courses on DC improved overall, both at the level of the individual participating hospital and at the level of the NICU, after taking part in the courses. We also studied the relationship between course satisfaction and knowledge acquisition.

## 2. Methods

This was a multicenter observational study with a before-and after-course design, conducted in 2011. Two neonatologists and two neonatal nurses from Hospital 12 de Octubre, Madrid, Spain were sent to teach a DC course in the 20 hospitals in Madrid with neonatal units. At least one of the doctors and one of the nurses delivering the course were trained in NIDCAP. The course was the same for each center. Course participants included neonatologists, nurses, and nursing assistants. The department heads of each unit were responsible for selecting participants and ensuring that all designated professional groups and shift patterns were represented in order for the sample to be representative of each unit. The recommendation in terms of attendance was 20 practitioners per course; however, in each of the three largest units (Level IIIC), two courses were given in order to reach the greatest number of practitioners. Overall, 23 courses were organized for 566 professionals. [Appendix 1](#), based on the article published by Rite Gracia et al,<sup>22</sup> includes the characteristics of each participating hospital according to level of neonatal care. This paper, published in 2012, is a review based on the first document, produced in 2004, to define health care levels in Spanish hospitals in relation to neonatal care. It sets out the technical and health care requirements to be met in relation to the level of care provided and accounts for the changes that neonatal care has undergone over time. Level I refers to regional hospitals with maternity units, Level II refers to general hospitals, and Level III refers to reference hospitals. As this distribution can be applied to all Spanish units, we believe that our study population is representative of the whole of Spain. Hospital 12 de Octubre in Madrid has a Level IIIC NICU in which DC is routinely practiced. The first professionals to obtain NIDCAP certification commenced their training in 2005. At the end of 2011, the center was certified as a NIDCAP training center.

### 2.1. Course

The main objective of the course, from a theoretical and practical standpoint, was to prepare professionals to care

Download English Version:

<https://daneshyari.com/en/article/4174994>

Download Persian Version:

<https://daneshyari.com/article/4174994>

[Daneshyari.com](https://daneshyari.com)