

The effect of a Sleep Care Educational Program on Nurses' Knowledge and Practice in Newborn Intensive Care Nursery (NICN)

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Abstract

Background & Research Objectives: All babies have important sleep needs, and those born prematurely have their own unique set of sleep habits and needs that are different from those of a full-term baby. Sleep is essential for organizing and maturing the brain in premature infants; it also plays a role in maintaining the natural balance between different nervous centers. Dr. Als' Synactive Theory and the NIDCAP Model of care were presented in the 1st International NIDCAP Workshop held in Al-Zahara Hospital in Isfahan, Iran in Oct 2013. This study aimed at assessing the effect of a sleep care educational program on the nurses' Knowledge and Practice in Newborn Intensive Care Nursery (NICN).

Methods: In this quasi-experimental pre-posttest study structured into three stages, 35 nurses working in an NICU in Isfahan, Iran, were included. The newborn sleep care educational program included oral presentation sessions with questions and answers followed by nurses' exposure to sleep posters and booklets in the NICN. Data was collected by a nurses' knowledge questionnaire having shown validity and reliability through content validity and internal consistency respectively. The questionnaire consisted of 40 multiple-choice questions asked prior to, immediately after, and 1 month after the education program was implemented. Nurses' practice was evaluated prior to and 1 month after the educational intervention using 15 multiple-choice questionnaire. Data was analyzed by descriptive and inferential statistics using the SPSS16 software.

Results: The results revealed that the mean score of nurses' knowledge immediately and 1 month after the educational intervention was significantly increased as compared to prior to the intervention 33.33(4.4) vs. 19.33 (4.1) ($P < 0.001$). The score of nurses' practice was slightly improved following the educational intervention although it did not show any significant differences ($P = 0.07$, 42.6 (7.6) vs. 45.1 (7.8)).

Conclusions: According to the results of this study this method of education could lead to a significant increase in nurses' knowledge, however it did not significantly improve their practice. This may be due to the low number of educational sessions; therefore, we recommended to administrators of NICN to invest in a long-term continuous educational program on premature infants' sleep care to enhance nurses' performance. Lastly, this education may result in nurses' support to create a quiet environment to promote good sleep in premature infants and improve their brain development as well as to decrease infants' developmental problems due to insufficient sleep in the noisy and crowded NICN with excessive handling and distracting procedures by staff.

Take Home Message: According to the American Academy of Pediatrics (AAP), premature infants may sleep for as many as 22 hours a day, but only for about an hour at a time. Also according to the NIDCAP Model, states of consciousness (sleep & wake) is an important component in NICN. Nurses have an important role in creating a quiet environment for premature infant's brain development with good sleep. We recommended that NICN executives continue their efforts to improve nurses' knowledge and practice by scheduling appropriate sleep care educational programs as a long-term continuous education.

Keywords: *Newborn Intensive Care Nursery, Newborn Sleep, Nursing knowledge, Nursing Practice, Education Program*

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Conflicts of interest

There are no conflicts of interest.

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