

# Virtual learning may help nurses recognize baby pain

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Babies younger than four weeks old, called neonates, were once thought to not perceive pain due to not-yet-fully-developed sensory systems, but modern research says otherwise, according to researchers from

Hiroshima University in Japan.

Not only do babies experience [pain](#), but the various levels can be standardized to help nurses recognize and respond to the babies' cues—if the nurses have the opportunity to learn the scoring tools and skills needed to react appropriately. With tight schedules and limited in-person courses available, the researchers theorized, virtual e-learning may be able to provide a path forward for nurses to independently pursue training in this area.

To test this hypothesis, researchers conducted a [pilot study](#) of 115 nurses with varying levels of formal training and years of experience in seven hospitals across Japan. They published their results on May 27 in *Advances in Neonatal Care*.

"Despite a growing body of knowledge and guidelines being published in many countries about the preventions and management of pain in neonates hospitalized in the NICU, neonatal pain remains unrecognized, undertreated, and generally challenging," said paper author Mio Ozawa, associate professor in the Graduate School of Biomedical and Health Sciences at Hiroshima University.

The researchers developed a comprehensive multimedia virtual [program](#) on neonatal pain management, based on selected standardized pain scales, for nursing staff to independently learn how to employ measurement tools. The program, called e-Pain Management of Neonates, is the first of its kind in Japan.

"The aim of the study was to verify the feasibility of the program and whether e-learning actually improves nurses' knowledge and scoring skills," said paper author Mio Ozawa, associate professor in the Graduate School of Biomedical and Health Sciences at Hiroshima University. "The results of this study suggest that nurses could obtain

knowledge and skills about the measurement of neonatal pain through e-learning."

The full cohort took a pre-test at the start of the study, before embarking on a self-paced, four-week e-learning program dedicated to learning standardized pain scales to measure discomfort in babies. However, only 52 nurses completed the post-test after four weeks. For those 52, scores increased across a range of years of experience and formal education.

Ozawa noted that the sample size is small but also said that the improved test scores indicated the potential for e-learning.

"Future research will need to go beyond the individual level to determine which benefits are produced in the management of neonatal pain in hospitals where nurses learn neonatal pain management through e-learning," Ozawa said. "This study demonstrates that virtually delivered neonatal pain management program can be useful for nurses' attainment of knowledge and skills for managing neonatal pain, including an appropriate use of selected scoring tools."

**More information:** Mio Ozawa et al, Effectiveness of e-Learning on Neonatal Nurses' Pain Knowledge and Pain Measurement Skills, *Advances in Neonatal Care* (2021). [DOI: 10.1097/ANC.0000000000000894](https://doi.org/10.1097/ANC.0000000000000894)

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