Newborn screening is widely recognized as a tool for early detection of medical conditions that if left untreated, may result in serious long term health problems or even death. The majority of states in the United States have implemented an expansion of their newborn screening programs due to the introduction of tandem mass spectrometry (MS/MS) as a new and efficient means of screening methodology. In December, 2006, Texas implemented an expansion of their newborn screening program, requiring that all newborns be screened twice for twenty-seven disorders detectable through a blood sample, as well as for hearing deficiency.

The purpose of this timely study was to assess the effectiveness of an educational module as a tool for improving the knowledge of pediatric residents about newborn screening and the expansion of newborn screening in Texas. The study population consisted of 63 pediatric residents from the University of Texas at Houston, Baylor College of Medicine in Houston, and the University of Texas Medical Branch in Galveston. Residents were invited to participate in the study during their daily scheduled didactic lectures at their respective residency programs. Questionnaires were distributed to the residents both prior to and following the presentation of the educational module about newborn screening in Texas to assess what knowledge was gained from the presentation.

Analysis was done on the overall group of participants as well as on several sub-groups of interest in the study. An increase in knowledge about newborn screening in Texas was seen in the overall group, as well as in each of the sub-groups after the presentation of the educational module. This increase in knowledge included a 45.4% increase in knowledge about current newborn screening conditions and a 308.4% increase in knowledge about expanded newborn screening conditions in Texas within the overall study group (p=<0.001 and p=<0.001 respectively). Our results suggest that an educational module about newborn screening like the one we created for this study would be an effective tool for improving the knowledge of pediatric residents on a larger scale.