

Background

Intraventricular hemorrhage (IVH) occurs when there is bleeding in or around the ventricles of the brain. This condition occurs most often in premature infants with those born more than 10 weeks early at the highest risk for bleeding. IVH occurs in 20% to 25% of neonates born before the 30th week of gestation or weighing less than 1500 grams at birth. These hemorrhages can put pressure on the nerve cells of the brain and damage them. Severe damage to these cells can lead to brain injury and risk for long-term neurocognitive damage.

Purpose

The purpose of this study was to determine if IFMC was utilizing the best standard of practice and if the NICU nurses understood the protocol for preterm neonates less than or equal to 28 weeks to prevent intraventricular hemorrhage in the first 72 hours of life.

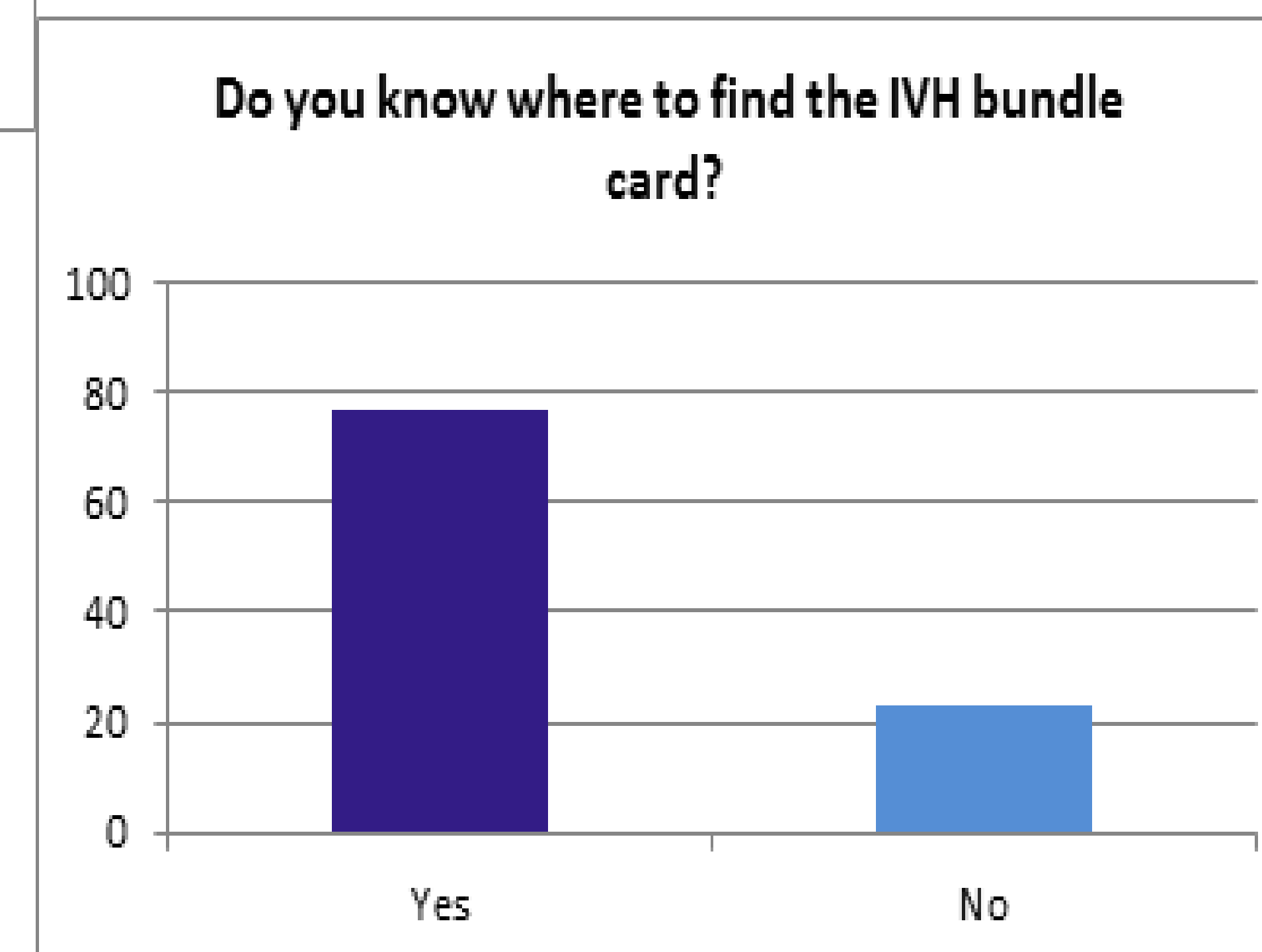
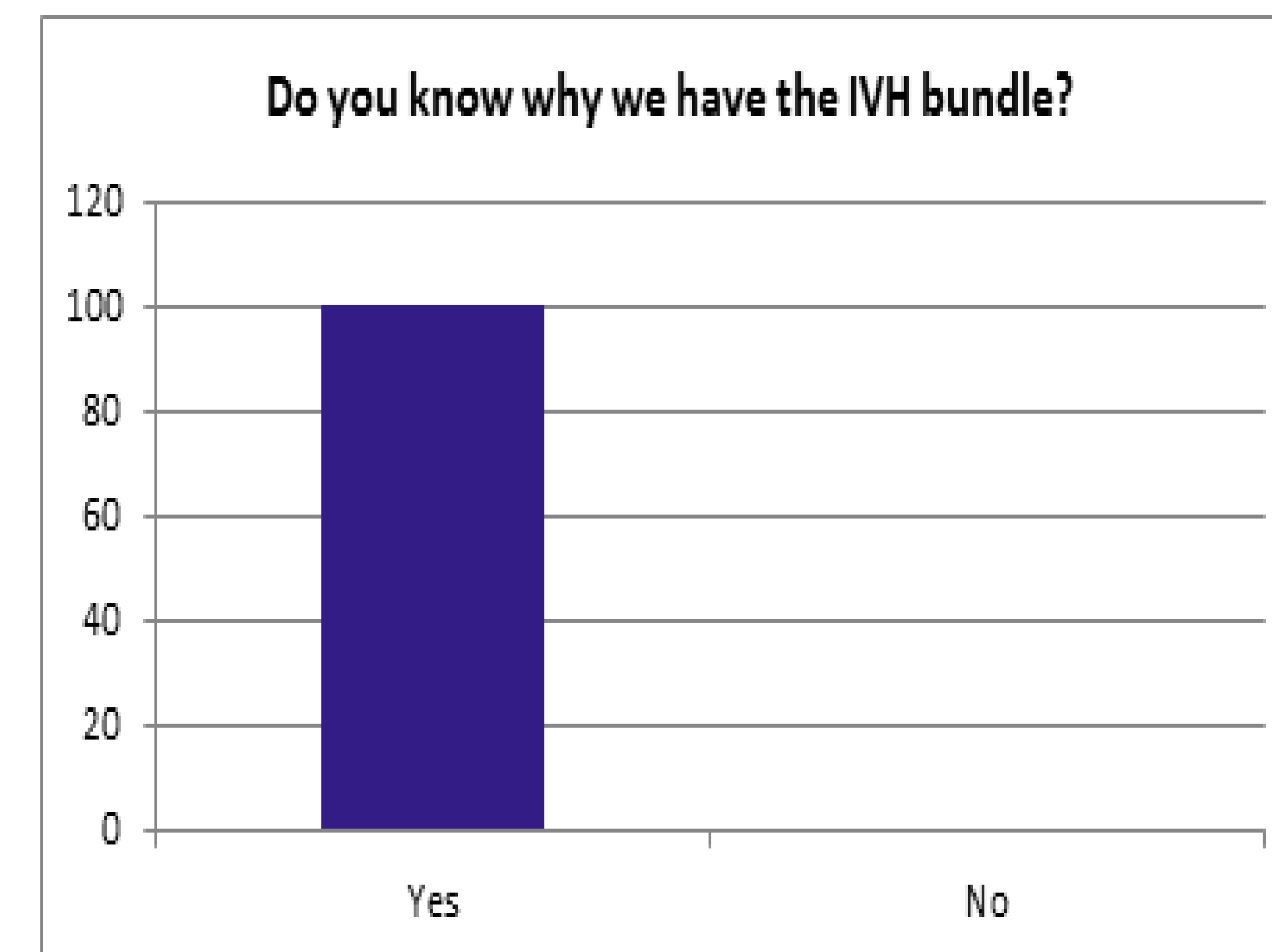
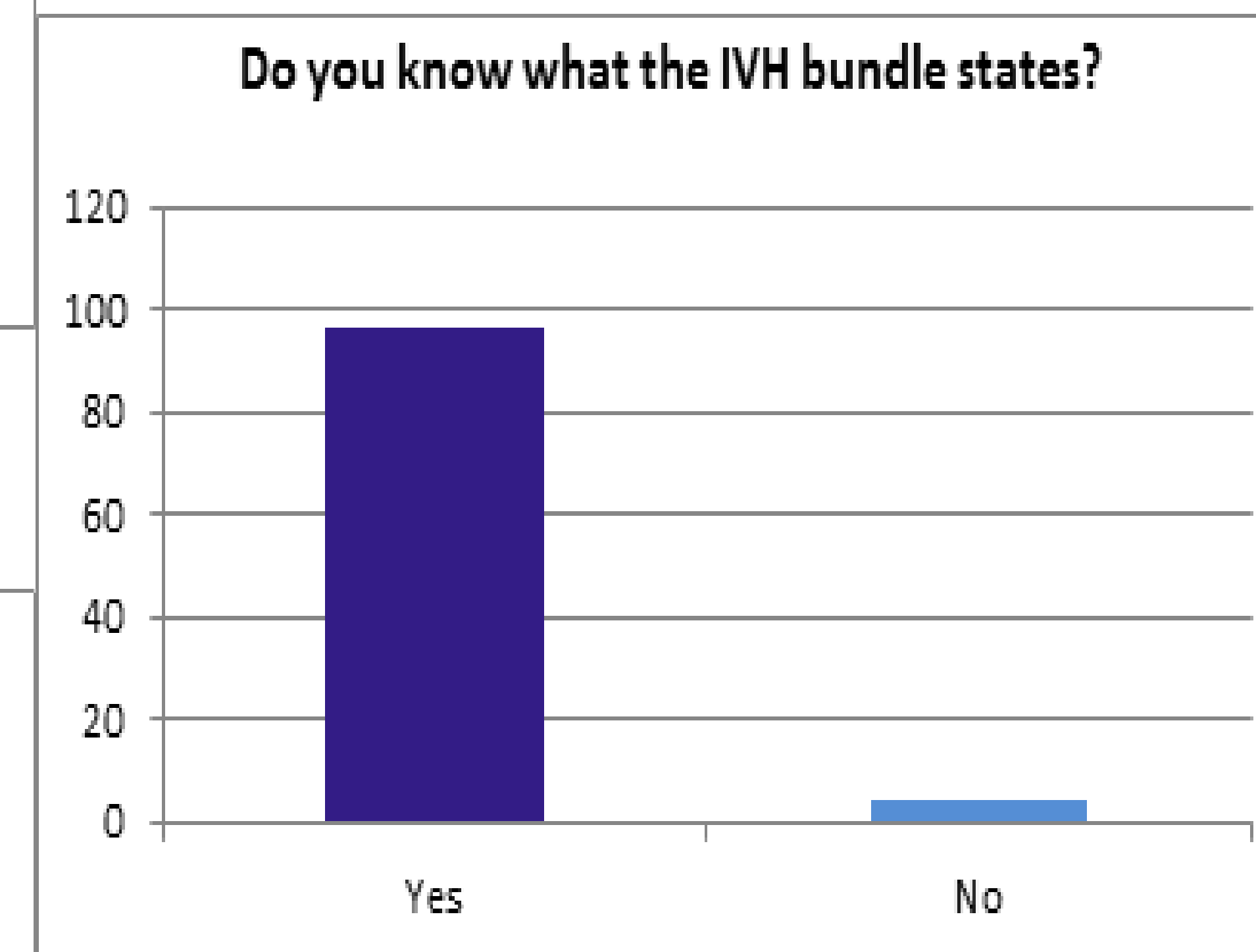
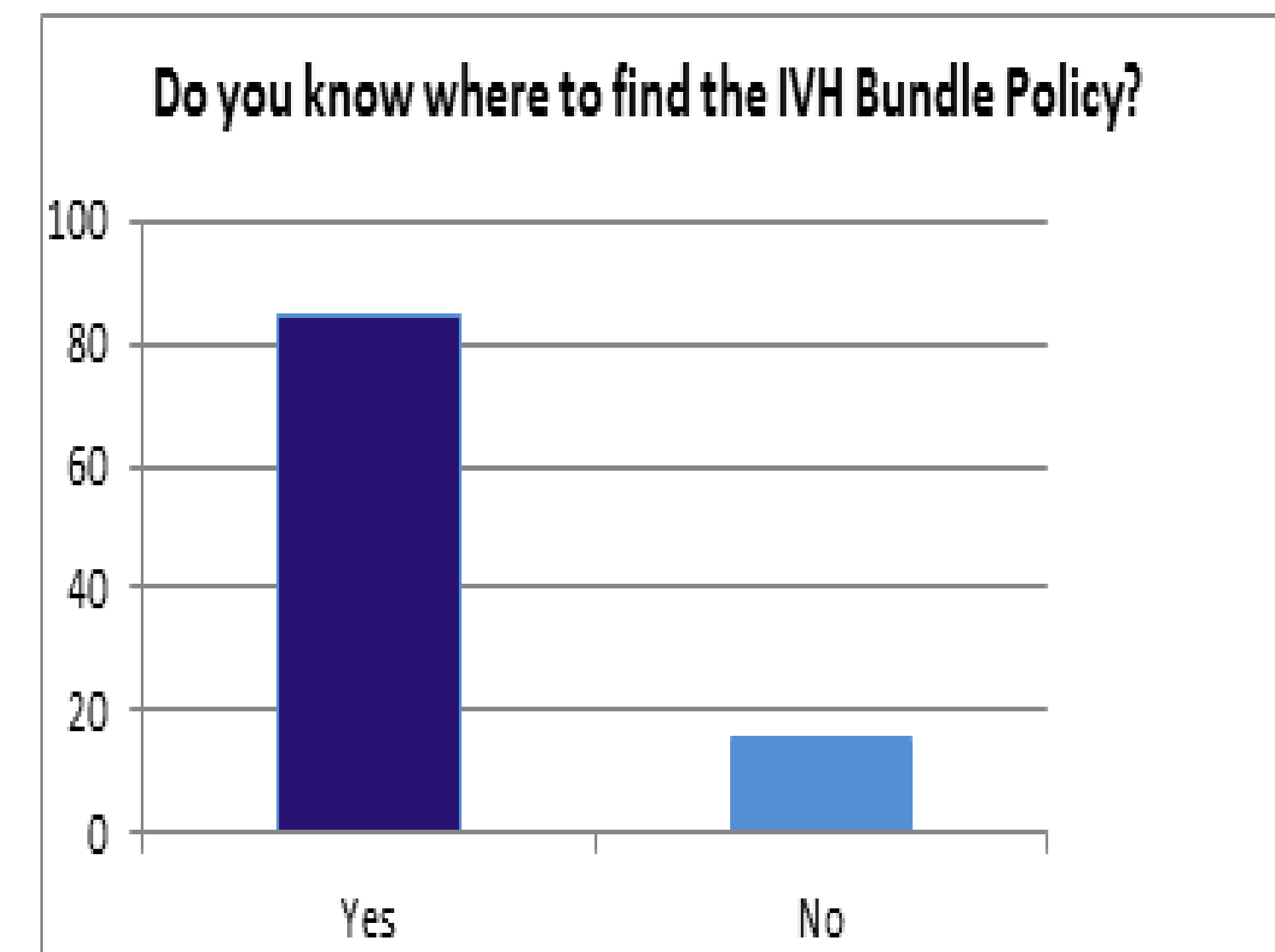
Methods

We initially read through eight articles on intraventricular hemorrhage (IVH) in preterm neonates. Of the eight articles, three were thrown out due to not pertaining to our PICO question.

From these articles, we learned that implementing an IVH bundle for premature infants does, in fact, decrease the occurrence of intraventricular hemorrhage. These articles consistently support delaying cord clamping, early stabilization, ensuring the infant remains in a neutral/ midline position, and decreasing stress and pain as much as possible.

Our research indicated that our unit was properly caring for premature infants with risk for IVH, so we surveyed the unit to determine the percentage of employees who were aware of the units IVH bundle guidelines.

Survey Results for Neonatal Intensive Care Nursing Staff N = 26 NICU RN responses



Findings

Utilizing Survey Monkey, results showed that 84.62% of NICU nurses knew where to find the IVH bundle policy. 96.15% know what the IVH bundle states. 100% know where to find the policy. 76.92% know where the IVH bundle cards are available.

Implications for Practice

IVH in preterm neonates is a devastating consequence of prematurity that has both perinatal and postnatal antecedents. It reduces the survival of premature infants and increases the risk of numerous neurological complications. Premature infants with moderate to severe IVH (grade 3–4) are at high risk of post-hemorrhagic hydrocephalus, cerebral palsy and mental retardation, while infants with mild IVH (grade 1–2) are at risk of developmental disabilities. Being aware of the onset of IVH is a prerequisite for identifying its antecedents and subsequently applying preventive measures. Analyzing early IVH separately from late IVH will reduce the observed inconsistency and more effectively delineate additional precursors of IVH. The nursing staff of the IFMC NICU work with this population on a regular basis. Being able to identify and utilize these factors for an IVH bundle are integral to the over health and care of the premature patients. Future research with large-scale studies is required to clarify whether the long-term neurological outcomes of early and late IVH are the same.

References

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