Patient Safety Does Not Stop At The Curbside:
A Program To Increase Child Passenger Safety Knowledge in Nursing Practice
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BACKGROUND
- Traffic collisions are the #1 cause of death, serious injury, and disability for children.
- 4 million babies born annually in U.S.; “A new parent is born every day.”
- Research shows 93% of newborns incorrectly restrained upon hospital discharge from university hospital\(^1\).
  SafetyBeltSafe U.S.A. field data support this.
- Correctly used safety seats reduce injury and death substantially.
- Medical facilities in California are required to provide child passenger safety (CPS) education and resource referrals for families.
- Nurses are expected to provide CPS education, but few receive current information or appropriate training.

METHOD
1-hour webinar content included basic information to enable nurses to provide education that meets California Vehicle Codes 27360-27368 and Health & Safety Codes 1204, 1212, 1268.
Objectives were to understand:
- why motor vehicle crashes are a major cause of death and injury for children.
- the state-mandated role of hospitals in preventing traffic injuries and deaths.
- California Child Passenger Safety law.
- 5 key best-practice messages.
- transport options for children with special needs.
- effective preventive nursing interventions, appropriate for non-CPS Technicians.

Participants were recruited through participating California professional nursing organizations and medical facilities. 9-question multiple-choice test was administered before the training to reveal prior CPS knowledge and after, to show learning gains.

RESULTS
Twenty webinars were held, registering 655 participants. Pre- and post-test data were collected for 655 & 313 participants respectively.
Significant knowledge deficits were identified on pre-test: only 33% knew how to assess for a snug safety seat harness; only 39% knew the law on restraint of booster-age children.
Comparison of pre- and post-tests showed correct response rate increased from 50% to 78%. This was statistically significant at p<0.001.
Learning gains were lower in 1 area (law on restraint of booster-age children); correct responses increased by 10%, but this was not statistically significant. 70% of respondents were responsible for giving CPS information to families; only 27% had received specific CPS education from a certified CPS Technician.

### DISCUSSION

Significant gaps and misunderstandings of basic CPS recommendations were seen among MCH nurses. These gaps would lead to nurses giving false or misleading information. This could put children at risk of injury in a crash and parents/caregivers, of violating California law (thus incurring fines of about $500 per child). The 1-hour webinar was very effective in increasing CPS knowledge and understanding among nurses.

Recommendation: training on the basics of CPS and regularly updated information should be provided to all MCH nurses who educate families in accordance with the California Hospital Mandate. This kind of training can be replicated in other states and communities.

Limitations: the study did not test (a) if the participant group formed a representative sample of California nurses; (b) if learning gained through the webinar translated into any positive change in the quality of education provided to families.

Areas for further study:
Qualitative follow-up with participants about impact of the webinar on their practice.
Audit of hospital compliance with the California Mandate and the quality of CPS education provided for and by nurses.

### CONCLUSION

To meet California mandates and reduce liability risks: hospitals, clinics, birthing centers should audit accuracy and effectiveness of CPS programs and training of staff providers.

Health care facilities and nursing organizations should partner with CPS specialists for make current, technically accurate information and training available so that nurses can provide a quality service. **Patient safety does not stop at the curbside.**

### REFERENCES

