The Prevention of Post-Operative Delirium in the Pediatric Population

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Emergence delirium (ED) is a cluster of behaviors in the post anesthetic period. It can result in:
- Negative emotional effects for up to 6 months.
- Physical injury
- An increase in utilization of hospital resources

Developed research questions:
- PICO: In the pediatric population (P) how effective are pharmacological interventions (I) as compared to previously traditional approaches (C) in the prevention of ED (O)?
- PICO: In Adventist University student registered nurse anesthetists (P), will a 30-minute (T) educational presentation about the pharmacological prevention of pediatric emergence (I) delirium result in an increase in understanding and knowledge (O)? No comparison necessary.

Findings

A single dose of Propofol administered just prior to emergence has been shown to be effective in the prevention of ED in the pediatric population. Presenting this information through a power point presentation was effective in increasing knowledge on ED.

Etiology

- Unknown
- Associated with rapid emergence from volatile anesthetics (Martin et al., 2014).

Risk of injury in Postoperative Emergence Delirium

ED can lead to unintended self-injury of the child, and present itself with the child in an excited and disorientated state (Hoff et al., 2015). Delayed PACU Time and Recovery

According to Zhu et al. (2015), there was a direct correlation in the treatment of ED and extended PACU time.

Methods

- Pre-test and post-test design.
- A convenience sample, consisting of twenty-seven junior SRNAs were presented with an ED educational PowerPoint.
- Inclusion criteria consisted of all junior SRNAs enrolled in ADU.
- Exclusion criteria included: SRNAs not enrolled in ADU, absent students, and students failing to sign informed consent.
- Students were presented with a 10-question multiple choice test prior to presentation and an identical test post presentation.

Limitations included: Small sample size and limited number of test questions.

We would like to thank Dr. Snell, Hillary Martino, and Dr. Roy Lukman for their time, participation, and guidance.

Conclusion

A power point presentation was effective in increasing the knowledge base of the 2019 SRNA cohort regarding the prevention of pediatric ED. Limitations included: Small sample size and limited number of test questions.

It is hoped that the knowledge obtained through the presentation will assist the 2019 SRNAs as they start their pediatric rotations.

Paired Samples Test

<table>
<thead>
<tr>
<th>Paired Samples Statistics</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>95% Confidence Interval of the Difference</th>
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<td>Paired Differences</td>
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<td>Pre-Test</td>
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<td>Post-Test</td>
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<td>-5.211 - 3.2813</td>
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