IMPLEMENTATION OF PEDIATRIC EMERGENCE DELIRIUM (PAED) SCALE

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Introduction

- The origin of Emergence Delirium (ED) in children is unknown, and hypotheses have been formed that may include postoperative pain, or anesthetics agents.
- Pediatric ED is described as a disturbance in mentation during the recovery from general anesthesia.
- Symptoms may include agitation and confusion that is manifested by moaning, restlessness, and involuntary physical activity.
- ED occurs in patients of all ages, but occurrence in children ages three to ten years is more frequent.

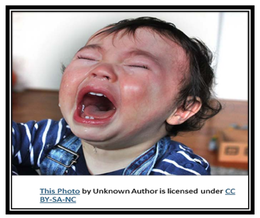
Purpose

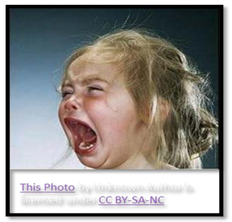
- Emergence delirium in children is often underrecognized but can represent a serious complication and extend hospitalization.
- Children with ED are at risk of: harming themselves by injuring the surgical site, dislodging IVs, airway tubes, falling, or refusing care.
- Risk of having PTSD that can last up to a year
- The best method of managing pediatric ED is early recognition by anesthesia or nursing personnel
- The Pediatric Anesthesia Emergence Delirium (PAED) scale, showed the best results for evaluation and measure of emergence delirium for children.

Methods

PICOT Question: In PACU nurses (P), does the implementation of nursing education (I) on the use of the Pediatric Anesthesia Emergent Delirium (PAED) scale (C), as opposed to the Face, Legs, Activity, Cry, Consolability (FLACC) Scale, reduce the time required to evaluate and treat emergence delirium in pediatric patients three to ten years of age, and lead to improved nursing satisfaction and confidence (O) within three months (T)?

- This project was designed to provide nursing education in and established a protocol for addressing and treating ED
- The first part was a pre-test followed by ED simulation scenario.
- The scenario was followed with debriefing and education about use of PAED scale.
- At the second simulation session nurses implemented learned knowledge and the post-test was given afterward.
- The testing and education sessions were done in group sessions of one-hour periods





PAED Scale

Behavior	Not at all	Just a little	Quite a bit	Very much	Extremely
Make eye contact with caregiver	4	3	2	1	0
Actions are purposeful	4	3	2	1	0
Aware of surrounding	4	3	2	1	0
Restless	0	1	2	3	4
Inconsolable	0	1	2	3	4

1 – Calm; 2 – Not calm but could be easily consoled; 3 – Moderately agitated or restless and not easily calmed; 4 – Combative, excited, thrashing around

Results

- From the results, the nurses currently working in PACU have an average age of 34 years, and average experience of 1-5 years.
- After completing the education and the post-test, nursing familiarity with ED and the PAED scale increased.
- The FLACC scale time were twice as long as the PAED scale, which cut the time for treatment in half.

Paired Sample t Test and Pearson r Between FLACC and PAED Scale		
	Variable 1. FLACC scale	Variable 2. PAED scale
Number of Sessions (n)	6	6
Mean (m)	60 seconds	30 seconds
Variance	1.4	4
Pearson r	0.26	
t Stat	35	
P (T<=t) two-tail	0.00	

Conclusions

- The results indicated that after PACU nurses' education on the use of the Pediatric Anesthesia Emergence Delirium (PAED) scale, that the time the nurses needed to evaluate, identify, and implement treatment for postoperative emergence delirium in pediatric patients ages three to ten years of age compared to the current use of the Face, Legs, Activity, Cry Consolability (FLACC) Scale, is shorter.
- The PAED scale is empowering nurses in faster recognition, diagnosis, treatment, and elevation of emergency delirium.
- The nursing satisfaction with the use of the PAED scale and the project's sustainability will be evaluated later, after the implementation of the scale in Epic
- With implementation of the PAED scale, nursing education, and change of work standards, may reduce behavioral changes and all other unwanted side effects that can be caused by ED.

References list available upon request.

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