

Pediatric Orientation Handbook: A Comprehensive

Guide to the Pediatric Anesthesia Environment

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Abstract

We hypothesized that a pediatric guide in conjunction with a powerpoint presentation would increase the knowledge base of 26 ADU junior students. Participation in the test was voluntary and all students were randomly assigned a number to deidentify the data. We administered a pre and post test to evaluate the knowledge retention after the presentation. For statistical analysis, a paired sample t-test was performed in order to analyze the mean score before and after receiving the lecture. Statistical analysis was performed by Roy Lukman, PhD. The mean pre-test score was 36.9231 while the mean post-test score was 68.4615 with a confidence interval of 95% , a t-value of -8.806, and a p value < 0.05; therefore, it can be concluded that the average scores increased significantly and the results were significant.



Description

- No handbook of pediatric anesthesia exists for SRNAs and CRNAs completing shifts at Florida Hospital for Children
- To address this problem a handbook with the most pertinent aspects of the pediatric anesthetic, from pre-op to recovery, have been outlined
- The handbook is not meant to be a surgical manual, but rather a refresher of anesthetic management of the common surgical procedures performed at Florida Hospital for Children
- The handbook is organized by anatomic category and also includes common medication dosing guidelines, important anatomic & physiologic differences from the adult, and a clinical pearls section
- A pre-test and post-test immediately before and after the teaching module was presented

Literature Review

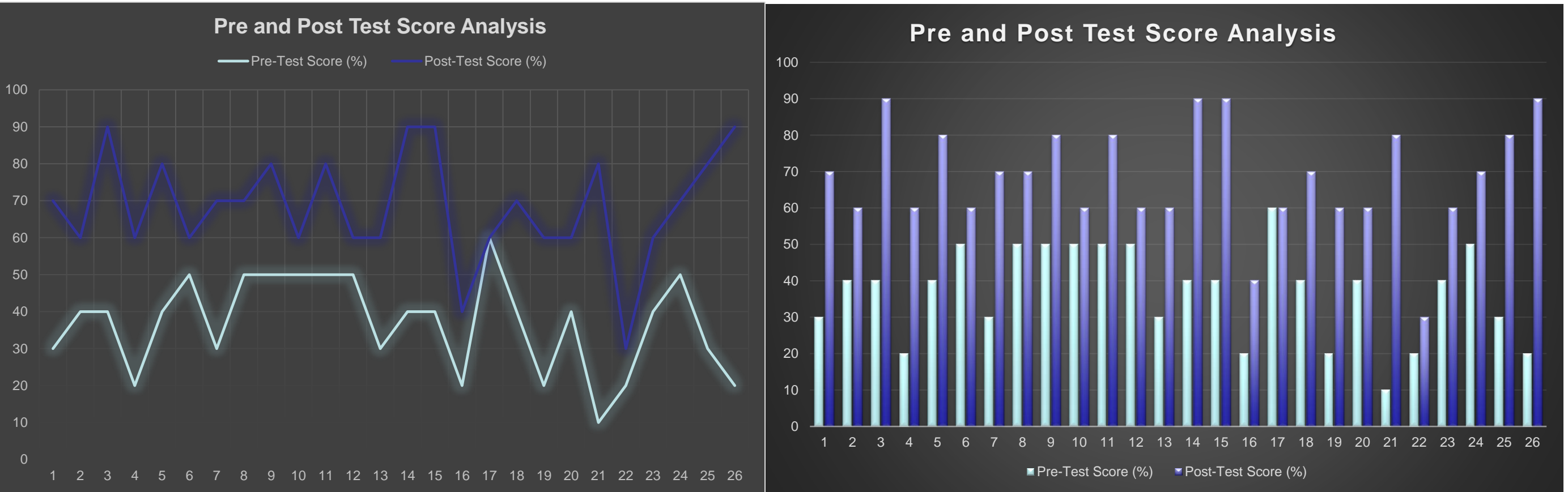
- The literature for pediatric perioperative anesthesia is limited; however, the evidence points toward increased risks of cardiac and pulmonary adverse events (Bhananker et al., 2007)
- The sequelae of respiratory events in the pediatric population can be of greater concern and lead to increased hospital costs and length of stay. Therefore, a thorough understanding of the physiologic differences is paramount. (Subramanyam, Hossain, Anneken & Varughese, 2016)
- If the risk of perioperative cardiac and pulmonary adverse events is higher in children with a proportion of this attributed to the failure to ventilate, it seems pertinent to increase the knowledge base of the user.
- Although CRNAs may have pediatric anesthesia experience at a different facility, it would be helpful to have a handbook that can provide some insight into the nuances of anesthesia performed at Florida Hospital/JLR Medical group.



Results

Paired Samples Statistics				
	Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pre-Test	36.9231	12.89007	2.52795
	Post-Test	68.4615	14.88417	2.91903

Paired Samples Test									
		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Pre-Test - Post-Test	-31.53846	18.26304	3.58168	-38.91506	-24.16186	-8.806	25	.000



Conclusion

Results from the pre and post-test indicate that SRNAs' knowledge of the pediatric anesthesia environment significantly improved.

Mean post-test scores increased by 85.4% from the mean pre-test score

References

Please refer to the back of the poster for a complete list of references