

## ABSTRACT

- An educational deficit has been noted among Certified Registered Nurse Anesthetists (CRNAs) of varying backgrounds at a prominent hospital in Central Florida. This is also compounded by a minimal number of available research studies and educational text book materials. The educational lecture provided addressed the need for additional knowledge available to fourth semester Student Registered Nurse Anesthetists (SRNAs). This lecture is also available to CRNAs.
- A convenience sample of 21 SRNAs was utilized. Informed consent was obtained. A pretest and a posttest were provided and evaluated for the difference between the two test scores. A paired t test was used to compare the results. A p value of < 0.05 was observed, establishing statistical significance. Results obtained concluded that in almost all cases the mean test score significantly increased from the pretest to the posttest.

## BACKGROUND

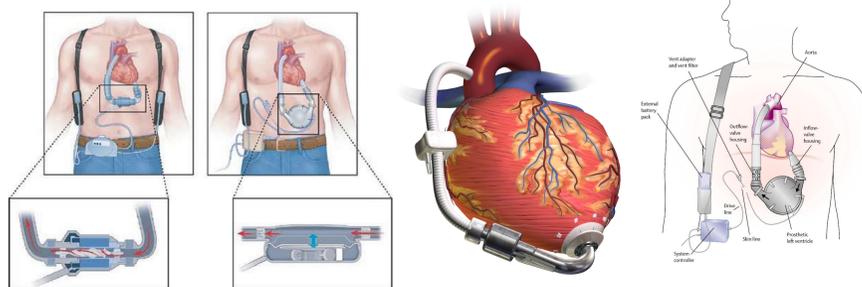
- The Joint Commission is responsible for accreditation for hospitals across the country. This accreditation body considers ventricular assist devices as part of an advanced practice model. The use of advanced practice techniques before heart transplant has seen a rise from 22 percent in 2007 to greater than 35 percent utilization in 2012 (SRTP, 2013). This represents a 61.8 percent increase. The previously discussed data also shows an almost even number of patients receiving inotropic therapy to those utilizing ventricular assist devices (SRTP, 2013).
- A review of current literature demonstrates a lack of relevant research regarding available education for SRNAs and CRNAs on ventricular/mechanical assist devices. A total of five articles were located that spoke directly to the nurse anesthetist population concerning VADs/MADs. There are far more articles available from anesthesiologist and medical sources on the use of VADs/MADs that the anesthetist would find to enhance their knowledge base. However, these articles lack the unique perspective of the SRNAs or CRNAs.

## OBJECTIVES

- The objective of this project was to educate fourth semester nurse anesthesia students enrolled at Adventist University of Health Sciences on the function, role, history, and anesthetic considerations of mechanical assist devices for heart failure patients.

## METHODS

- Lecture presentation by K. Andy Mattison and Tamara Thomas utilizing Power Point to a convenience sample of SRNAs. This lecture is an independent variable.
- Pre-test
- Post-test
  - The change between these two scores is the dependent variable. The anonymous data collected was analyzed for comparison and results are shown in tables 1.1, 1.2 and 1.3



## RESULTS

Table 1.1

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	PreTest	4.4286	21	2.06328	0.45025
	PostTest	6.8571	21	0.85356	0.18626

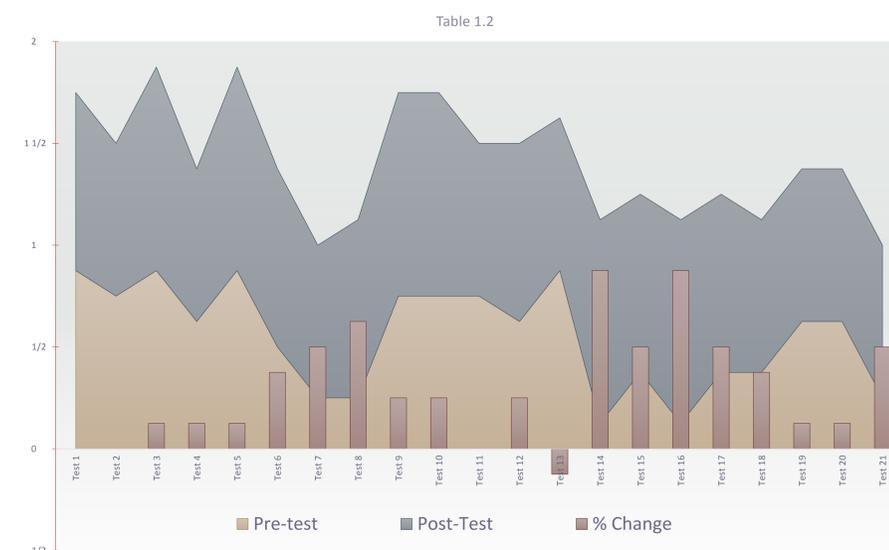


Table 1.3

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	PreTest - PostTest	-2.42857	2.22646	0.48585	-3.44205	-1.41510	-4.999	20	0.000

## RESULTS

- It was found that 17 of 21 scored higher on post-test than on pre-test with three participants having no change and one participant declined in score.
- The mean test score significantly increased from Pre-Test of 4.4286 to Post-Test of 6.8571.
- Utilizing a Paired t test a p value of <0.05 was observed and therefore statistical significance was achieved.

## CONCLUSIONS

- Based on the results from the pre-test to the post-test the lecture showed an improvement in scores. Statistical significance was achieved.
- It was felt that the lecture provided by K. Andy Mattison and Tamara Thomas improved the educational base of the fourth semester nurse anesthesia students at Adventist University of Health Sciences.
- With future use of the Power Point in the available format, other SRNAs and current CRNAs will benefit and build on their current knowledge base concerning mechanical assist devices in heart failure patients.