

# Community-Based Health Education and its Effects on African Americans

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## Problem

African Americans (AAs) between 35-64 years of age are at a 50% higher risk of having high blood pressure (BP) as compared to Caucasian Americans (CDC, 2017). Additionally, diseases such as hypertension (HTN), stroke, and diabetes (DM) are occurring at younger ages in AAs when comparing the two groups (Swelitzer, 2019).

Uncontrolled HTN can lead to acute and chronic illnesses; HTN also increases the risk of perioperative complications during surgery (Hartle et al., 2016; Wax, Porter, Lin, Hossain, & Reich, 2010).

## Methods

Face-to-face PowerPoint presentation (60-minute educational seminar on preoperative anesthetic hypertension education) at a predominantly AA church in Palm Bay, Florida.

Participants: AA ages 18-89 years old.

Recruitment: Church service announcements and flyers.

Knowledge base and retention were measured by Pre and post-test on the day of the educational seminar and at one and three months.

Data analysis: Analysis of Variance for Repeated Measurements (RM-ANOVA) method.

## Results

It can be presumed that community education, specifically in the AA population, increases the knowledge of perioperative anesthesia on HTN.

## Discussion & Implications

Community education is a receptive platform for preventative healthcare teaching in the AA community

The impact of community education on anesthesia and surgical healthcare may improve patient management of comorbidities such as HTN, therefore, decreasing perioperative hypertensive events and or surgical complications.

**Limitations:** Large participation mortality and study contained probable recall.

## Conclusions

Anesthesia providers have the opportunity to greatly impact their local AA population through community based education.

Future studies that incorporate recurrent community based education seminars on anesthesia are necessary to determine the impact on knowledge retention.

Submission for publication was not feasible due to the gross participation mortality.

## Literature Review

Preoperative education prior to surgery enhances patient knowledge of anesthesia and satisfaction (Hering et al., 2005; Nahm et al., 2012).

Benefits of unconventional health education and screenings (i.e. churches, barbershops, etc.) within the AA community include decreased BP, enhanced physical activity, and a lower rate of hospitalizations (Halbert et al., 2017; Wells et al., 2013; Victor et al., 2018).

Further research is required to assess the effect of preoperative anesthetic education on HTN within the AA community (Aaron et al., 2003; Howard et al., 2018; Farmer & Young, 2016).

## Results

Data analysis showed significant increase in the knowledge-base of participants on completion of the educational seminar as evidence by the improvement in posttest scores immediately after the seminar in comparison to pretest scores ( $t = -3.672$ ,  $p = .001$ ). (See Table 1, Table 2, and Figure A)

Meaningful analysis of data could not be obtained after the posttest immediately after the seminar due to a large attrition of participants (63%) in the one month posttest (See Figure A). Therefore, knowledge retention could not be measured.

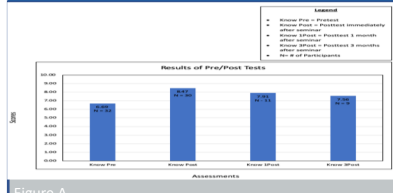
## More Results

Paired Samples Statistics				
	Mean	N	Std. Deviation	Std. Error Mean
Part 1	6.8667	30	1.73672	.31343
Part 2	8.4667	30	1.73669	.31307

Paired Samples Test								
	Mean	Std. Deviation	Std. Error of the Difference	95% Confidence Interval		t	df	Sig. (2-tailed)
				Lower	Upper			
Part 1 - Part 2	-1.60000	2.38675	.40374	-2.49123	-.70877	-3.972	29	.001

## Illustration



## Acknowledgements

Greater Palm Bay Church of God leaders and church members.