Hypertension diagnosis and physician recommendation to reduce salt intake among African Americans

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OVERVIEW

We prospectively evaluated potential differences in hypertension awareness(HA) and the impact of physician recommendation to reduce salt intake(PRRS). We hypothesized that hypertension diagnosis would be associated with consultation to reduce salt intake.

BACKGROUND

- Hypertension (HTN) is a pertinent global health issue with increased prevalent contributing factors such as lack of physical activity and increased BMI
- High blood pressure is an independent risk factor for adverse cardiovascular and renal outcomes and therefore controlling this health issue is important
- Death rates for African American men and women, however, were reported as 51.6 and 38.3 per 100,000 respectively compared to their Caucasian counterpart who faced substantially lower death outcomes of 17.4 and 14.4 per 100,000.
- As much as 30% of all deaths due to HTN in African American men and 20% in women can be contributing to high blood pressure.

Methods

- 2014-2015 aggregated Behavioral Risk Factor Surveillance System BRFSS data was used in this assessment .
- Only those who reported being non-Hispanic African Americans, had valid hypertension diagnosis, and had valid data on physician consult to reduce salt intake were included within our sample population n= 4,476.
- Hypertension was defined as being aware of the condition; Physician consults to reduce salt was defined as being advised to reduce salt based on a proper hypertension diagnosis
- Logistic regression was performed to examine the association between hypertension diagnosis and physician consult to reduce salt intake using STATA.

STUDY FLOWCHART

Figure 1: Analytic Sample

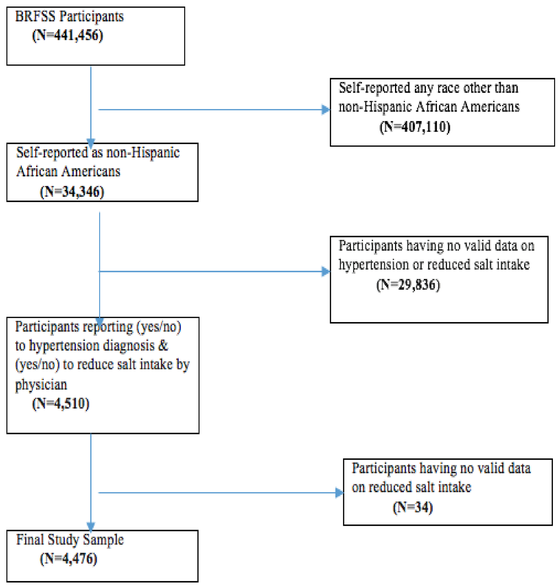

Table 1:
Comparison of Hypertension diagnosis against demographic and socioeconomic variables: Behavioral Risk Factor Surveillance System, United States, 2015

	Salt Reduction: Yes N=2644	Salt Reduction: No N=1832
Hypertension		
Yes	61.0% N=1603	14.0% N=317
No	39.0% N=1041	86.0% N=1515
Sex		
Male	42% N=818	37.5% N= 687
Female	58% N=1826	62.5% N= 1145
Age		
18-34 years	9.0% N=133	49.0% N=604
35- 64 years	65.0% N=1523	45.0% N=996
65+ years	26.0% N=988	5.7% N= 232
Marital Status		
Married	31.8% N= 841	31.1% N=570
No longer Married	45.2% N= 1,195	27% N=495
Never Married	22.6% N= 598	41.9% N=767
Education Level		
Did not graduate	23.0% N=442	12.0% N=155
Graduated high school and attended	63.0% N=1650	70.0%N=1,124
some college/technical school	15.0%N=552	19.0% N=497
Graduated College/Technical School		
Income Level		
<$25,000	62.0%N=1,707	56.0%N=1,008
<$50,000	20.0%N=499	21.0%N=385
>$50,000	19.0%N=438	23.0%N=441

RESULTS

Table 2
Odds ratios of Salt Reduction outcomes: Behavioral Risk Factor Surveillance System, United States, 2015

Characteristics	Unadjusted OR (95% CI) Salt Reduction: Yes	Adjusted OR (95% CI) Salt Reduction: No
Hypertension		
Yes	9.28 (7.43- 11.58)	7.539 (5.924 - 9.593)
No	1.0 (Ref)	1.0 (Ref)
Sex		
Male	1.0 (Ref)	1.0 (Ref)
Female	0.877 (.810 - .949)	.874 (.692 - 1.103)
Age		
18-34 years	1.0 (Ref)	1.0 (Ref)
35- 64 years	0.17 (0.152 - .194)	.173 (.121 - .247)
65+ years	0.045 (.039 - .052)	.072 (.046 - .113)
Marital Status		
Married	1.0 (Ref)	1.0 (Ref)
No longer Married	.604 (.547 - .668)	1.01 (.770 - 1.34)
Never Married	2.451 (2.228- 2.696)	1.362 (1.000 - 1.854)
Education Level		
Did not graduate		
Graduated high school and attended	.447 (.391- .510)	.590 (.387 - .901)
some college/technical school	.822 (.753 - .897)	.888 (.679 - 1.16)
Graduated College/Technical School	1.0 (Ref)	1.0 (Ref)
Income Level		
<$25,000	1.0 (Ref)	1.0 (Ref)
<$50,000	1.120 (1.012 - 1.239)	1.235 (.925 - 1.649)
>$50,000	1.316 (1.198 - 1.446)	1.509 (1.062 - 2.143)

CONCLUSIONS

- Our results suggest that physicians can play an important role in reducing racial/ethnic disparities in hypertension control
- Our study highlights the need for testing an intervention aimed at increasing provider awareness of disparities within the local health setting to improve hypertension control for minority patients
- Continuing to move forward in research, clinical, and preventative effort to understand and intervene upon the multifaceted reasons as to why HTN disparities exist among certain populations is central to providing HTN specialty care