

# Self-Efficacy to Perform Lifestyle Changes to Control Blood Pressure Varies by Race

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# Purpose

- To evaluate patient self-efficacy for performing recommended behavioral changes to control blood pressure as recommended by JNC-7.

# Methods

- A voluntary, self-administered survey.
- Three medical students were randomly assigned to one of four Primary Care offices on each weekday June 15 – August 7, 2009.
- Responses from the survey were coded and entered into PASW 17.3 (SPSS Inc., Chicago, IL) for statistical analysis.

# Methods

- Self-efficacy was measured as the patient's perceived ability to complete specific tasks targeted based on the JNC-7 guidelines.
- Total lifestyle self-efficacy score computed as a mean of the JNC-7 subscales

# Methods

- Descriptive statistics were computed for the sociodemographic and personal factors, stratified by race/ethnicity.
- Frequency analyses were used to describe the distributions of self-efficacy responses for the specific behaviors by race/ethnicity.
- To determine racial differences in the self-efficacy to perform these behaviors, Analyses of Covariance (ANCOVA) were computed for the mean levels of self-efficacy for each behavior as well as for the total self-efficacy scores by race/ethnicity.
- Statistical significance was established at  $\alpha < 0.05$ .

# Results

- 1,223 questionnaires collected during the 2 month study period.
- 901 surveys had complete self-efficacy data and sociodemographic data.
- 5,565 patients were seen at the four offices where the surveys were collected, representing an assessment of 16% of all patients seen during the study period.

# Results

- 66% of the subjects were female,
- 48% were college graduates
- 5% had less than a high school education.
- 66% were employed.
- 51% reported an annual household income below \$50,000.
- 24% were African American.
- 66% were non-Hispanic white.
- 37% self-reported that they had hypertension.

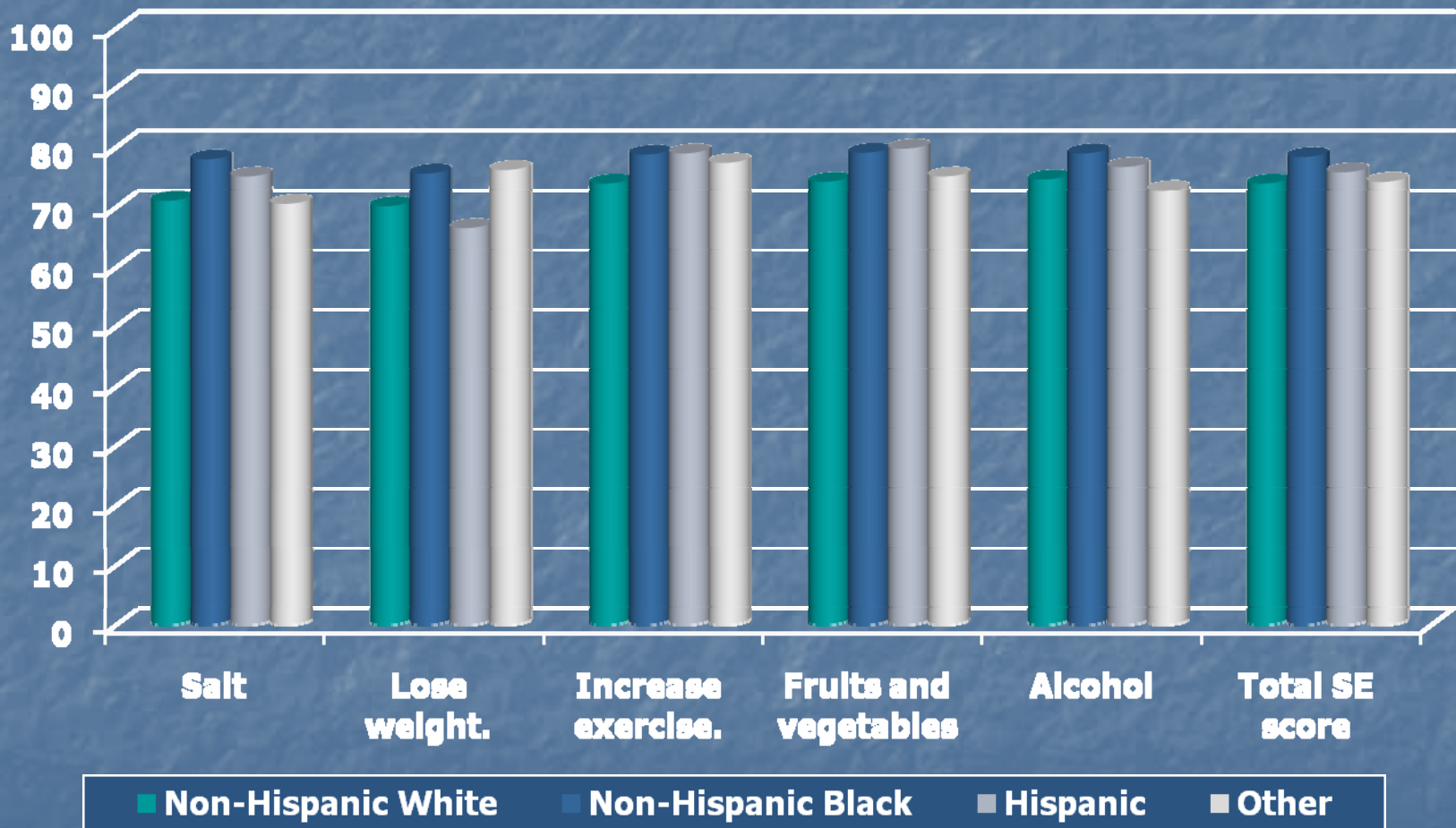
# Results

- African Americans (n=218) in comparison to Non-Hispanic Whites (n=607) reported significantly higher mean self-efficacy scores for:
  - sodium reduction (P=0.026)
  - weight loss (P=0.013)
  - increasing exercise (P=0.003)
  - eating a diet high in fruits and vegetables (P=0.022)
  - total behavioral self-efficacy (P=0.016)
  - Losing weight was the behavior with the lowest levels of self-efficacy

# Results

Behavior (Reported as Mean and STD)	Non-Hispanic White (n=607)		Non-Hispanic Black (n=218)		Hispanic (n=32)		Other (n=44)		P
	Mean	STD	Mean	STD	Mean	STD	Mean	STD	
Cut down on salt.	71.0	26.2	77.9	23.0	75.0	22.9	70.5	26.0	0.026
Lose weight.	70.1	25.6	75.5	24.8	66.4	28.1	76.1	22.8	0.013
Increase exercise.	73.8	22.7	78.7	22.6	78.9	23.9	77.3	20.8	0.003
Eat a diet high in fruits and vegetables	74.1	22.8	79.0	24.4	79.7	28.0	75.0	23.5	0.022
Drink alcohol in moderation	74.5	28.8	78.9	27.2	76.6	32.3	72.7	30.4	0.672
Total SE score	73.8	17.1	78.3	17.5	75.7	21.1	74.1	18.3	0.016

# Results



# Conclusions

- African Americans present with the highest rates and severity of hypertension.
  - These data indicated that this group had the highest levels of self-efficacy
- Health care professionals should identify the self-efficacy of their patients as a precursor to behavioral counseling
- Need to account for cultural beliefs may also be important.