



Adherence to the American Heart Association's Life's Essential 8 Guidelines in Young African American Women

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Background

- Heart disease is the leading cause of death among African American women in the United States (Ferdinand, 2020).
- Significant racial disparities in CVD exist, with African American women having the highest burden of disease compared to women of other racial and ethnic groups (Ebong, 2020)
- Young African American women are now experiencing higher frequencies of risk factors and developing CVD earlier than white women (Kalinowski, 2019).
- The American Heart Association (AHA) developed the Life's Essential 8 (LE8) to promote ideal cardiovascular health. Adherence has been proven to be effective at reducing lifetime risk of CVD morbidity and mortality (Lloyd-Jones, 2022).
- African American women are less likely to meet 4 or more ideal levels of the LE8 criteria (Folsom, 2011).
- No research has addressed young African American women's (aged 20-35) adherence to the LE8. Further research is therefore essential.

Methods

Study Design

- We performed a secondary cross-sectional analysis of survey data designed to assess stressors, resilience, and dietary behaviors amongst young African American women across the United States.

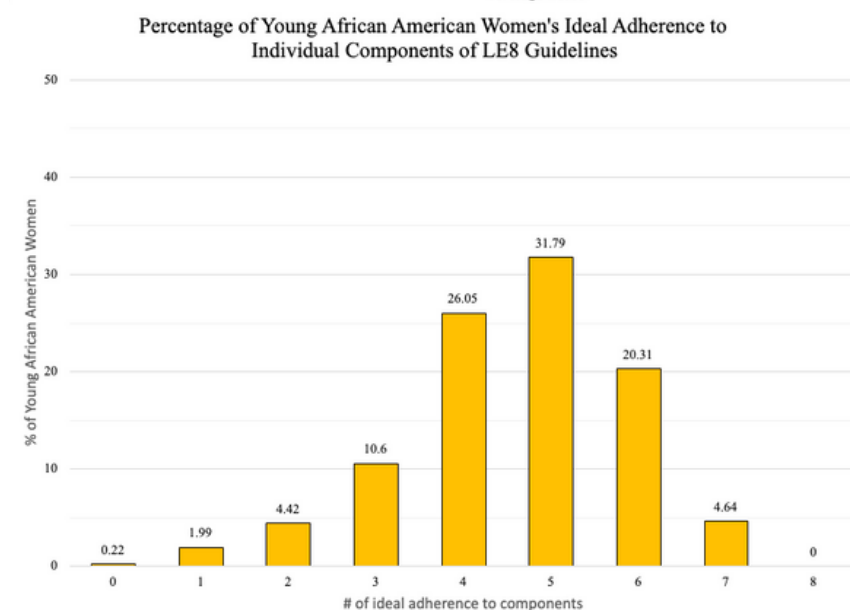
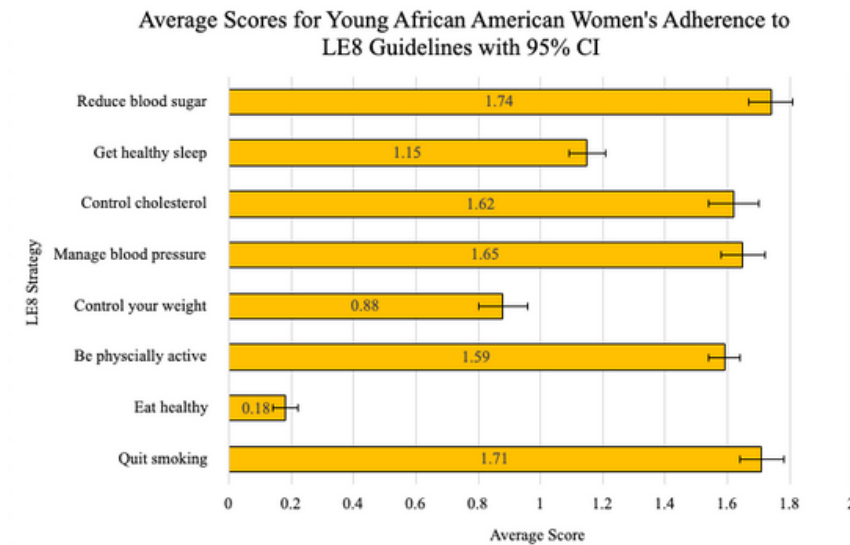
Scoring Approach

- We operationalized each of the LE8 strategies through the assigning of poor, intermediate, and ideal health scores (scored 0-2 points) (Lichtenstein, 2021; Lloyd-Jones, 2022).
- Final health scores could range from 0-16 points

Statistical Analysis

- Participants were divided into a low and high adherence group based on median LE8 adherence scores. Student's *t* and χ^2 were employed to determine socio-demographic, health, and anthropometric differences among groups for continuous and categorical variables.
- All analyses were conducted using SAS version 9.4.

Results



Characteristics	LE8 Adherence Score		P Value
	Below Median Score <11 (n=188)	Above Median Score ≥11 (n=265)	
Age [†]	24.35 (4.90)	23.56 (4.83)	0.09
Education			0.27
Less than high school	58.82% (10)	41.18% (7)	
High school graduate	45.93% (62)	54.07% (73)	
Some college	39.24% (62)	60.76% (96)	
4-year-college degree	35.11% (33)	64.89% (61)	
Graduate or professional degree	42.86% (21)	57.14% (28)	0.48
Marital Status			0.04*
Single	37.88% (125)	62.12% (205)	
Married or living as married	49.54% (54)	50.46% (55)	
Divorced	71.43% (5)	28.57% (2)	
Widowed	57.14% (4)	42.86% (3)	
Children			0.0005***
0	34.02% (83)	65.98% (161)	
1	50.24% (105)	49.76% (104)	
Depression [‡]			0.02*
Never diagnosed	36.84% (105)	63.16% (180)	
Diagnosed	51.52% (85)	48.48% (80)	
Perceived Stress Score [§]	8.00 (2.72)	7.34 (2.91)	0.015*
Social Support Score	1.66 (0.91)	1.66 (0.92)	1
Discrimination Life Score	8.16 (5.65)	5.49 (5.08)	<0.0001****

Student's *t* test and χ^2 tests were used to determine differences between groups for continuous and categorical variables

*Indicates a P value ≤ 0.05
 **Indicates a P value ≤ 0.01
 ***Indicates a P value ≤ 0.001
 ****Indicates a P value ≤ 0.0001

[†] Age n = 450
[‡] Depression n = 450
[§] Perceived Stress Score n = 452

Key Findings

- Of the participants in the survey, 453 had data necessary to assign operationalized LE8 adherence scores.
- The mean age of eligible participants was 23.89 (sd ± 4.87).
- Mean perceived stress score was 7.60 (sd ± 2.85). Mean discrimination life score was 6.60 (sd ± 5.48).
- The average adherence score was 10.52 (10.29-10.79 95% CI).
- The majority of participants were ideally adherent to quitting smoking, being physically active, managing blood pressure, controlling cholesterol, and reducing blood sugar.
- 81.90% of participants exhibited poor adherence to the healthy diet strategy
- Young African American women below the median adherence score tended to have higher perceived stress and discrimination life scores. Those above the median score tended to be single, have no children, and lower prevalence of diagnosed depression.
- Each of these characteristics achieved significance at the $\alpha < 0.05$ level.

Discussion & Conclusion

- Overall, our sample of young African American women exhibited intermediate adherence to LE8 guidelines.
- A majority of our participants (78.15%) exhibited ideal adherence to 4-6 strategies of the LE8. Ideal adherence to ≥4 LE8 strategies is strongly correlated with lower incident of heart failure in African Americans (Spahillari, 2017).
- Ideal adherence for smoking, physical activity, blood pressure, cholesterol, and blood sugar were greater than the general US population aged 20-39 (Tsao, 2022).
- The majority of participants exhibited poor dietary adherence. Other studies have found African American women struggle with adhering to healthy dietary guidelines. (Epstein, 2012).
- Further research is essential in order to understand whether racial disparities in healthy dietary adherence are also found amongst younger Americans.
- Participants with higher perceived stress and discrimination life scores were strongly associated with lower overall adherence, consistent with the findings of many other studies (Tomfohr, 2016).
- Limitations included potential for reporting and selection bias, as well as limitations in survey questions preventing stratification of certain adherence scores.

Acknowledgements

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