

The Impact of Nutritional Changes on Dietary Inflammatory Index: NEWSoul

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Objective: To investigate how changes in diet at six months can impact DII scores and how changes in DII scores are related to changes in body weight among participants in the NEW Soul study.

Design: Six-month, randomized 2-arm intervention

Methods: A total of 66 participants were randomized to either a plant-based vegan diet (n=32) or a low-fat omnivorous diet (n=34) in a culturally-tailored dietary intervention with weekly classes. Participants had diet and body weight assessed at baseline and six months and different food parameters were used to calculate DII scores. Independent sample t-tests were used to examine differences in DII change scores between groups and a Pearson correlation was conducted to examine the relationship between change in DII and weight loss.

Results: At the six months, the DII score of the entire sample significantly decreased by -1.7 ± 2.1 points ($p < 0.001$). The differences between the changes in DII scores between the omnivorous (-1.6 ± 2.5) and vegan (-1.9 ± 1.7) groups was not significant ($p = 0.69$). The correlation between changes in DII score and change in body weight also was not significant ($r = 0.19$ and $p = 0.17$).

Conclusion: These results suggest that both intervention diets have a higher anti-inflammatory potential than the typical soul food diet participants consumed before the intervention, but did not appear to favor one diet over the other. The data suggested that there was not a strong correlation between weight change and DII. Future research should examine if health-related outcomes, other than weight loss, are associated with improvements in the DII among this population.

Conflict of Interest: None

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