

One Month Whole Food Plant Based Nutrition Educational Program Lowers LDL, Improves Glucose Control, and Decreases Inflammatory Markers



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Background

The increase in lifestyle-related chronic disease in the United States has led to the need for more research targeting dietary choices.

Based on the evidence supporting whole food plant-based nutrition to improve overall health, we created a one-month intervention program to investigate its effects on specific health indicators.

Objectives

To educate the public on the important connection between the quality of food and its effect on health, both as a cause and as a potential cure of the most common chronic diseases.

Methods

Ten cohorts participated in four 90-minute educational and cooking sessions over a one-month period, either in-person or remote.

The intervention was a comprehensive whole food plant-based education that included meal planning, nutrition label reading, and the health benefits of plant-based nutrition.

The cooking classes included batch cooking, cooking methods to preserve nutrients, and cooking without oil. Biomarkers included weight, BMI, BP, and lab work done before and after the one-month intervention.

Results

The tables show the results of all participants and the results from only those who were defined as high-risk by abnormal baseline values. The significant results were found from the pre to post program ($p < 0.05$ for all of these measures) in the crude analyses and also after imputation for missing follow-up data.

Decreases in AST and ALT trended towards but did not reach significance in either crude or imputed analyses.

Triglycerides and cholesterol to HDL ratio differences were not found to be significant in the crude or imputed analyses.

Conclusion

This simple whole food plant-based nutrition education intervention resulted in statistically significant reductions in weight, BMI, blood pressure, total cholesterol, LDL, HDL, hemoglobin A1C, and hsCRP.

These results have important implications for lowering the prevalence of the most common chronic diseases including cardiac disease, type-2 diabetes, and obesity.

Significant Results	All Participants					High Risk Cases					
	n	Baseline	Follow-Up	Change	P value	High-risk defined	n	Baseline	Follow-Up	Change	P- value
Systolic Blood Pressure	64	126.8	124.2	-2.5	0.13	> 130	24	142.6	132.5	-10.0	<0.01
Diastolic Blood Pressure	63	79.1	76.7	-2.4	0.06	> 90	23	89.7	81.1	-8.7	<0.01
Weight	95	186.7	182.6	-4.2	<0.01	BMI \geq 25	72	202.5	198.2	-4.3	<0.01
BMI	95	30.9	30.2	-0.7	<0.01	\geq 25	72	33.5	32.8	-0.7	<0.01
Total Cholesterol	68	200.1	174.8	-25.3	<0.01	> 200	34	230.4	191.6	-38.8	<0.01
LDL	70	119.4	100.4	-19.0	<0.01	> 100	54	131.3	108.6	-22.7	<0.01
HDL	71	57.2	51.4	-5.8	<0.01	< 40	8	34.5	31.8	-2.8	0.01
Hemoglobin A1C	33	6.3	6.1	-0.2	<0.01	> 5.6	25	6.6	6.4	-0.2	<0.01
hsCRP	19	5.9	4.0	-1.9	<0.01	> 3.0	14	7.3	5.0	-2.3	0.02

