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Preventing Type 2 Diabetes in Latino Immigrants

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Preventing Type 2 Diabetes in Latino Immigrants

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Introduction

More than one in ten people of Mexican descent have diabetes, which is twice the rate of the general population. People of Latino descent scored lower on healthy eating questionnaires and report less physical activity/ week than people of non-Latino descent. Diabetes risk factors observed in Latinos include higher waist circumference, higher levels of LDL cholesterol, lower levels of HDL cholesterol, and higher fasting glucose levels.

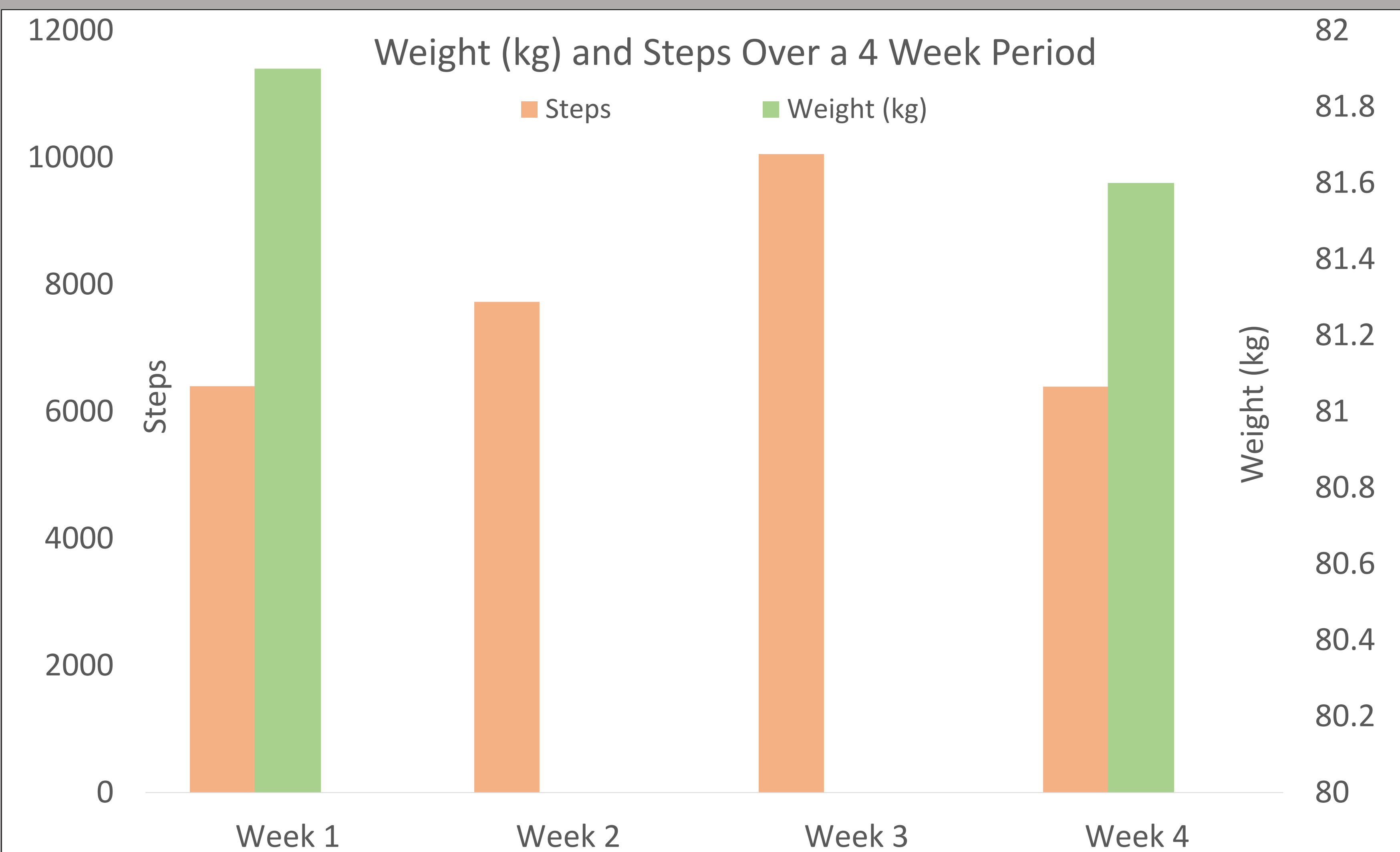
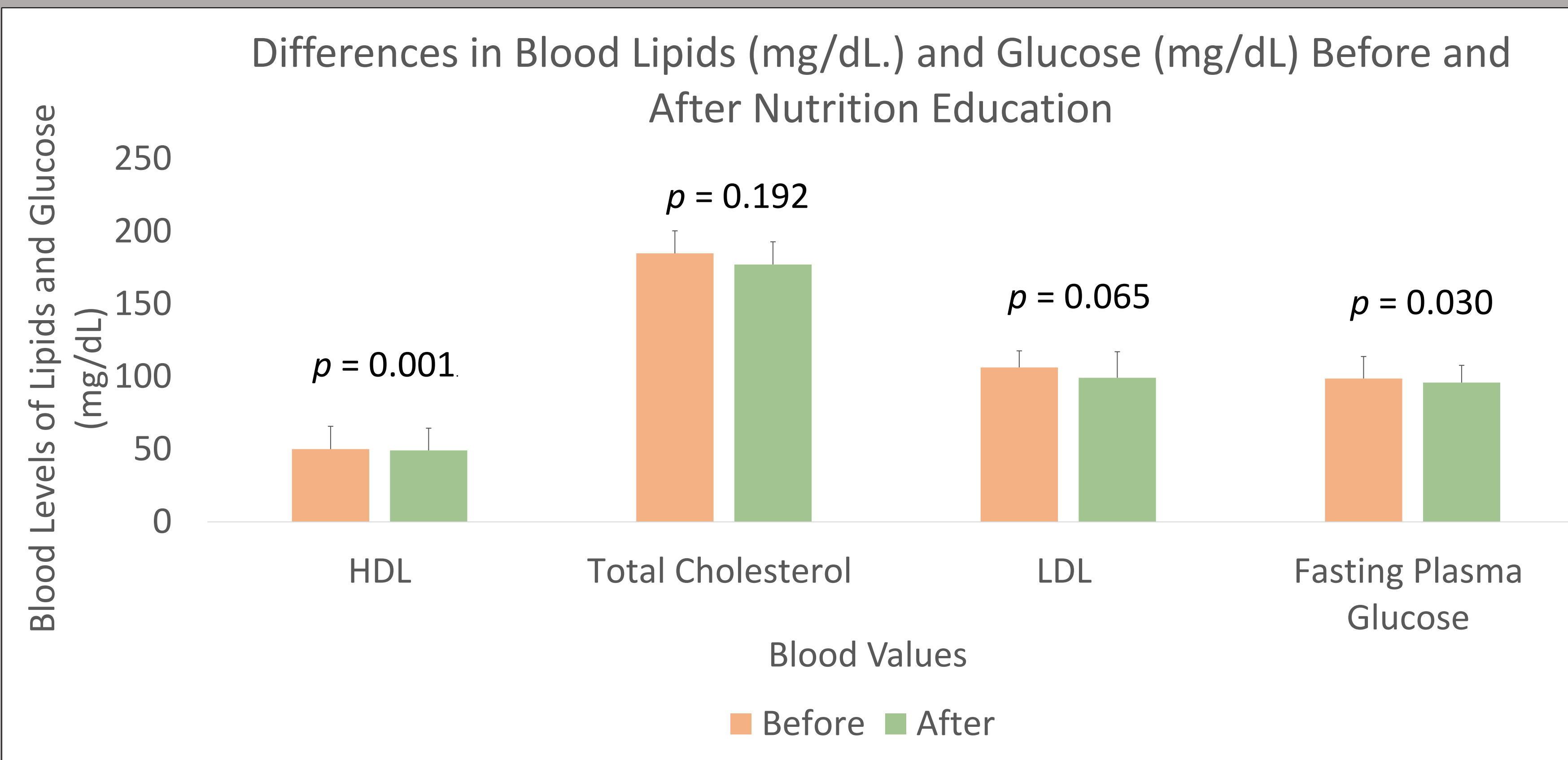
Purpose

To assess if nutrition education and pedometer use could improve weight, body composition, blood glucose, and lipid profile results in an individual to lower risk for type 2 diabetes.

Methods

- Obtained IRB approval from the College of St. Benedict and St. John's University
- Informed consents were signed in Spanish
- Participants were recruited from a class called, "I CAN prevent diabetes"
- A survey measuring nutrition habits and activity levels was given on the first and the last day of the class
- Pedometers were given to track activity levels
- Nutrition education class occurred 1X/week
- Fasting blood glucose, lipid levels and weights were measured before and after to determine the effect of pedometer use and nutrition education
- Paired t-tests and a one-way ANOVA were used for statistical analysis

Results



Survey Results

- 55% of participants reported decreased serving sizes
- 55% of participants reported increased vegetable intake
- 66% of participants reported eating less tortillas and sweets
- 55% of participants reported drinking more water

Summary

- 60% of participants began the study with their fasting plasma glucose within normal range (less than or equal to 100 mg/dL)
- On average, 55% of participants increased their steps walked per day
- 40% of participants who increased their steps, decreased their blood glucose
- 20% of participants that increased their steps decreased their blood glucose and their weight
- Participants that decreased weight increased steps by 1000-2000 steps/day

Conclusions

- The length of the study was limited to six weeks total. Despite the short time period, improvements were seen in blood values, weight loss, physical activity habits, and dietary patterns.
- Contact with participants was limited and behavior change takes time. A larger sample size and longer study could yield more statistically significant results.

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