

Tiempo Juntos por Nuestra Salud

Cardiovascular and Cognitive Health in the Older Latinx Population

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Abstract

Physical activity interventions have shown to improve memory, attention, reaction time, and cognitive performance in sedentary but otherwise healthy older adults.¹ *Tiempo Juntos por Nuestra Salud* extends this field of research to Latino patients with mild cognitive impairment (MCI). The primary aim of the study is to examine the immediate and long term effects of physical activity on cognitive function, cardiovascular (CV) health, and sleep.

- It is hypothesized that increases in physical activity will lead to improvements in CV health, which will be positively associated with improvement in cognitive function.

This poster outlines the ways in which CV and cognitive health are measured and tracked in the project, including baseline findings from ongoing research about the biological connection between these two health factors to support the hypothesis. It concludes with a new study handout to better inform participants about heart health.

Background

- The positive relationship between physical activity and CV health (e.g. improved BP outcomes) is well documented.^{2,3}
- The relationship between CV and cognitive health is a newer field of research, from which various theories are outlined in this poster.
- Eligible participants in the study are 55+ years of age with MCI, self-identify as Hispanic/Latinx; Spanish language dominant, and live in the Philadelphia area.

Methods

- Data is collected for both CV and cognitive health at baseline, 3 month, 6 month, and 12 month timepoints.
- CV health is measured through heart rate as well as systolic and diastolic BP readings.
- Cognitive health is measured by scores on Neurobattery, Montreal Cognitive Assessment, (MoCA), and Clinical Dementia Rating (CDR®) memory tests; designed to measure executive function, episodic memory, and working memory. All testing is completed in Spanish.
- Descriptive data for any reported changes in CV or cognitive health in participants is also recorded.

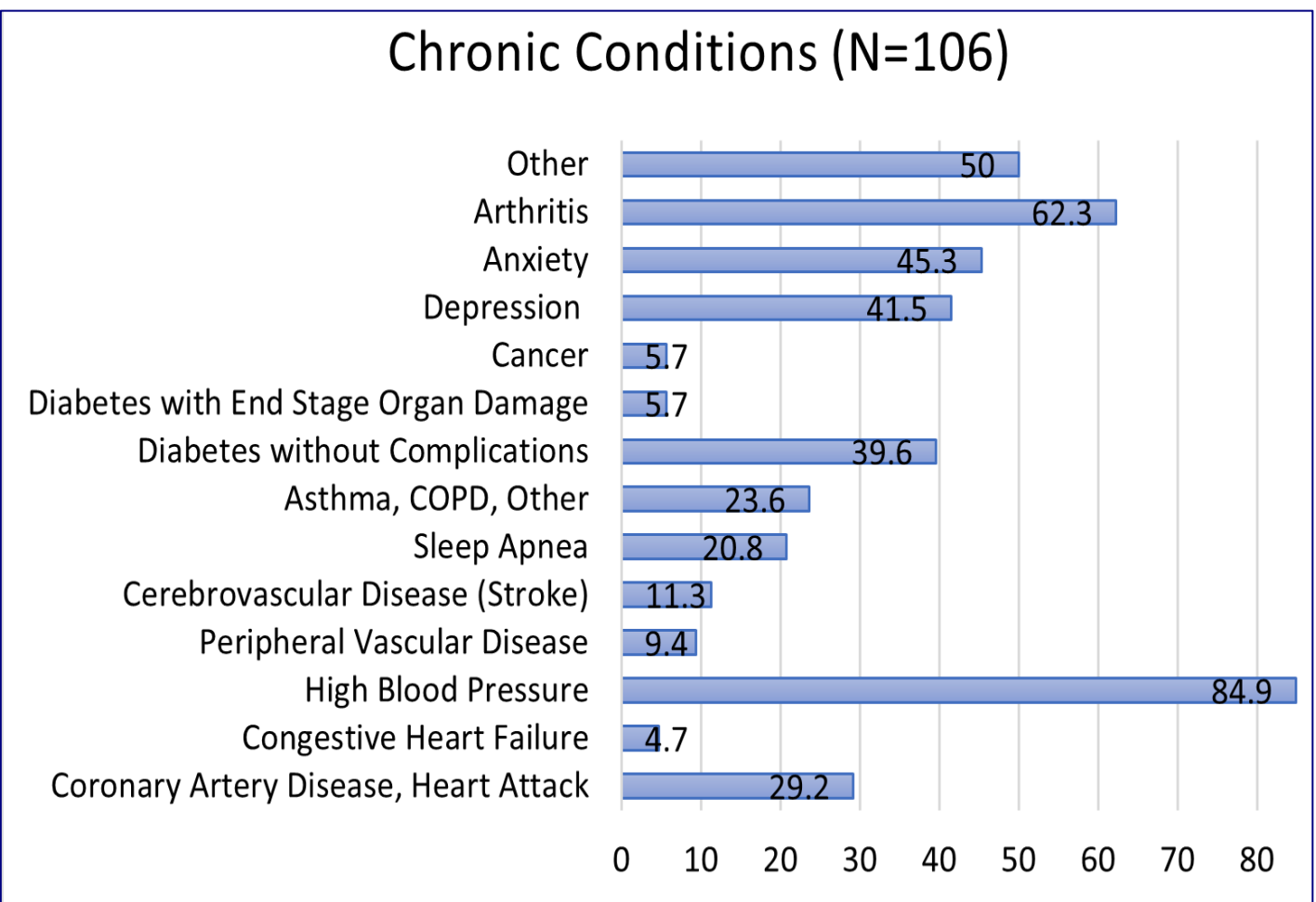


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Results

- Recruitment is ongoing; current baseline demographics show High BP is the highest reported chronic condition among participants enrolled so far (N=106, 84.9%). This high prevalence demonstrates the significance of CV health disparities on the population.



- Ongoing research has found several connections between CV and cognitive health to support this project's hypothesis:

- CV disease and cognitive disorders share risk factors including smoking and hypertension.^{4,5}
- CV disease and cognitive disorders share pathophysiological pathways such as inflammation and oxidative stress.⁶
- Improved CV health increases blood flow to the brain.^{2,3}
- Exercise, which is known to improve CV health, can increase the volume of brain regions involved with thinking and memory.⁷
- More studies are looking into potential links involving common genetic variants or environmental risks.⁴

Conclusions

- In the final year (2024), data collected for CV and cognitive health will be analyzed for positive association. Based on research discussed in the Results section, it is expected that participants in the intervention group will see improved CV and cognitive health.
- In addition to data collection, the *Tiempo Juntos* team aims to inform participants about their health. This PURM project culminated in a Spanish handout for participants to have personal records of their heart health, along with explanations of the readings and evidence-based recommendations for BP control.

REGISTRO DE LA PRESIÓN ARTERIAL

Fecha: _____ Sistólica: _____
Número superior

Pulso: _____ Diastólico: _____
Número inferior

Niveles de presión arterial recomendados por la Asociación Americana del Corazón

CATEGORÍA DE LA PRESIÓN ARTERIAL	SISTÓLICA (mm Hg) (Número superior)	DIASTÓLICA (mm Hg) (Número inferior)
NORMAL	Menos de 120	Menos de 80
ELEVADA	120-129	Menos de 80
PRESIÓN ARTERIAL ALTA (prehipertensión) NIVEL 1	130-139	80-89
PRESIÓN ARTERIAL ALTA (prehipertensión) NIVEL 2	140 o más alta	90 o más alta
CICLO DE HIPERTENSIÓN (CONSULTA A SU MÉDICO DE INMEDIATO)	MÁS ALTA DE 160	MÁS ALTA DE 100

MÁS INFORMACIÓN EN HEART.ORG/HEP

Tome acción hoy para estar saludable y no tener alta presión:

- Trate de mantener un peso saludable
- Manténgase activo/a todos los días
- Disminuya la cantidad de sal y sodio al cocinar
- Reduzca el consumo de bebidas alcohólicas
- Coma comida nutritiva como vegetales, frutas, y granos enteros
- Hable sobre su presión con un/una profesional de la medicina

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