



Thomas Jefferson University
Jefferson Digital Commons

Phase 1

Class of 2022

1-2020

Effects of Medications on Cognitive Function and Falls in Older African Americans with Diabetes

Diana Alnemri

Thomas Jefferson University, diana.alnemri@jefferson.edu

Robin J. Casten

Thomas Jefferson University, robin.casten@jefferson.edu

Follow this and additional works at: https://jdc.jefferson.edu/si_ctr_2022_phase1

 Part of the [Endocrinology, Diabetes, and Metabolism Commons](#), and the [Geriatrics Commons](#)

[Let us know how access to this document benefits you](#)

Recommended Citation

Alnemri, Diana and Casten, Robin J., "Effects of Medications on Cognitive Function and Falls in Older African Americans with Diabetes" (2020). *Phase 1*. Paper 101.

https://jdc.jefferson.edu/si_ctr_2022_phase1/101

This Article is brought to you for free and open access by the Jefferson Digital Commons. The Jefferson Digital Commons is a service of Thomas Jefferson University's [Center for Teaching and Learning \(CTL\)](#). The Commons is a showcase for Jefferson books and journals, peer-reviewed scholarly publications, unique historical collections from the University archives, and teaching tools. The Jefferson Digital Commons allows researchers and interested readers anywhere in the world to learn about and keep up to date with Jefferson scholarship. This article has been accepted for inclusion in Phase 1 by an authorized administrator of the Jefferson Digital Commons. For more information, please contact: JeffersonDigitalCommons@jefferson.edu.

SI/CTR Abstract

Word count: 250 words

Effects of Medications on Cognitive Function and Falls in Older African Americans with Diabetes

Diana Alnemri, Robin Casten*

Introduction: Potentially-inappropriate medications (PIMs) are medications that have increased rates of adverse drug events in older adults. Medications with anticholinergic activity are classified as PIMs since they can lead to cognitive dysfunction and increased fall risk. PIM use is higher among African Americans (AA) than Whites.

Methods: This study explored relationships among cognitive function, falls, and PIMs in AAs with diabetes. This study recruited AAs with diabetes (n=99, age ≥ 60 yrs) who were seen in the Emergency Department (ED), and were enrolled in a trial of a behavioral intervention to improve diabetes management. PIMs were based on the Beer's criteria and the Anticholinergic Cognitive Burden scale (ACB) score. The Montreal Cognitive Assessment (MOCA) was used to characterize cognitive impairment. Falls were recorded via EMR and a questionnaire.

Results: MOCA scores were not significantly correlated with PIMs use or ACB scores (PIMs: $r=-.101$, $p=0.318$; ACB: $r=-.110$, $p=0.283$). MOCA scores were, however, negatively correlated with the duration of diabetes, and this was upheld in a regression in which age was controlled ($r=-0.274$, $p=0.005$). Of 47 subjects who were questioned about falls, 20 subjects had at least one fall in the past 12 months, females having more falls than males ($F=19$, $M=1$). Although the relationship between falls and PIMs and falls

and ACB score ($p=0.925$; $p=0.122$) was insignificant, greater worry about falling was related to higher ACB scores ($p=0.013$).

Discussion: In sum, results suggests that diabetes duration is related to cognitive function, even when age is controlled. Females were more likely to have fallen, perhaps due to increased age or diabetes duration.