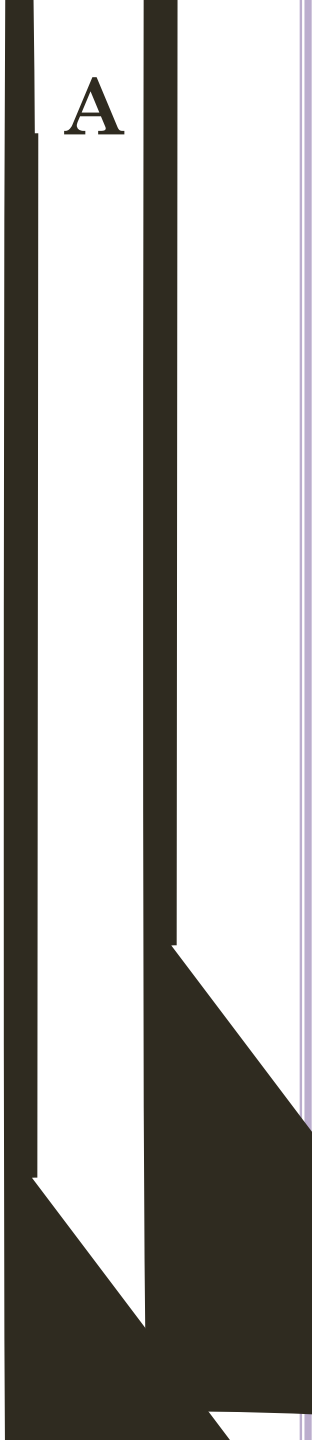
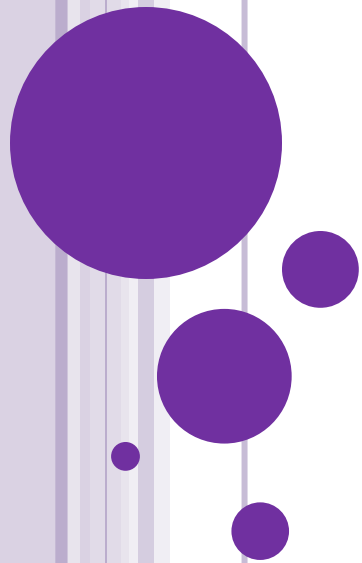


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- !
- ! University of Scranton
  - ! Department of Physical Therapy
- ! Daemen College
  - ! Department of Physical Therapy
- ! Rock Steady Boxing Bucks County



# OBJECTIVES

! By the end of the presentation, the audience will:

Understand the current literature in support of a Community-Based Boxing (CBB) program.

Recognize the relationship



# BACKGROUND

- ! is a neurodegenerative disease that affects individuals' physical, cognitive, and psychological function.
- ! Characterized by a loss of dopaminergic neurons in the substantia nigra compacta (SNc), this disease leads to both and .
- ! : tremor, rigidity, akinesia, postural instability
  - ! Primarily lead to , and



# BACKGROUND

- ! Exercise has shown to be a simple, yet effective intervention to improve impairments.
- ! The National Parkinson's Foundation QII Registry identified a correlation between



# BACKGROUND

! has  
become a commonly utilized intervention as  
it aims to by  
incorporating:

- ! Boxing movements
- ! Footwork drills
- ! Strength training
- ! Flexibility exercises



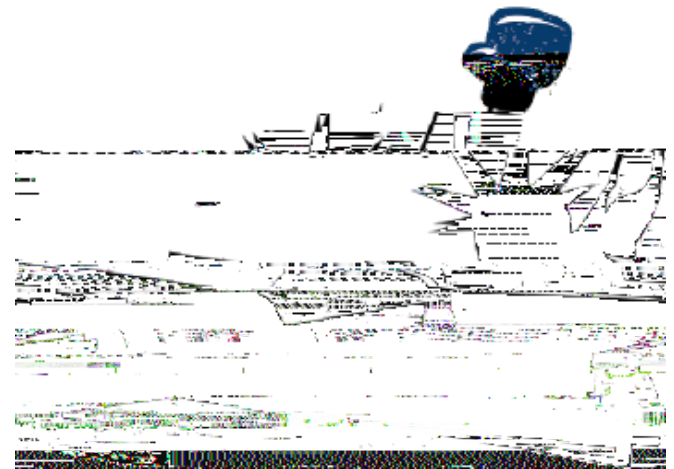
# BENEFITS OF CBB

- ! Improved QOL
- ! Improved sleep
- ! Cognitive and emotional benefits
- ! Decreased depression
- ! Improved physical objective measures:
  - Balance
  - Mobility
  - Endurance
- ! Supports ability to sustain active lifestyle



# WHAT IS ROCK STEADY BOXING (RSB)?

- ! Founded by Scott C. Newman & Vince Perez in 2006
- ! Non-Profit, Nationwide, CBB program for people who have received a medical diagnosis of PD
- ! Mission: "Empower people with Parkinson's Disease to fight back!"
- ! Class intensity depends on the level of function









# METHODS



- ! 90-minute sessions including:
  - ! Boxing drills
  - ! Traditional stretching
  - ! Strengthening
  - ! Endurance exercises



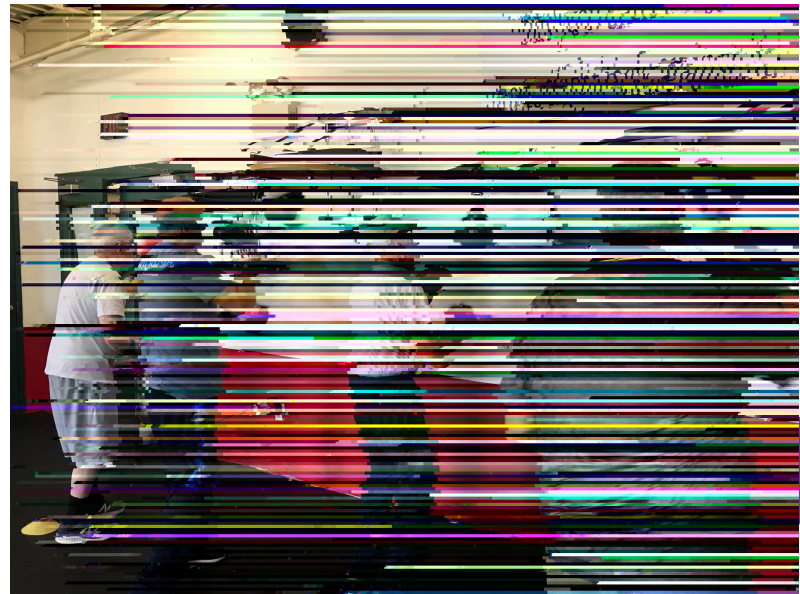
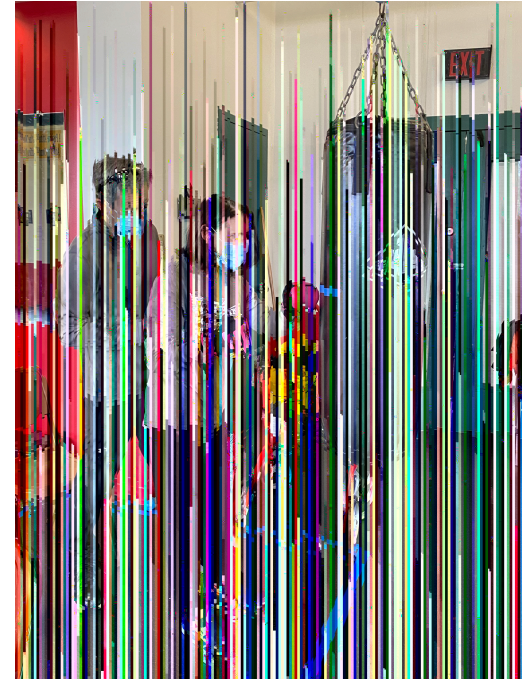
# METHODS

measures assessed at Initial Evaluation and at least 6 months following the completion:

Fullerton Advanced Balance Scale (FAB)

30 Second Sit to Stand (STS)

Timed Up and Go (TUG)



# STATISTICAL ANALYSIS

Multiple paired *t*-tests were used to compare participants' measures of balance and mobility prior to and following CBB.

T-tests and chi-square tests were used to compare those who had a positive outcome to those that did not according to:

- Age

- Gender

- Length of time with PD



# PATIENT DEMOGRAPHICS

Age	67.8 ± 7.2
Gender	21 males, 10 females
Time between PD Diagnosis and Initial Evaluation	3.9 ± 5.0 years
Range	6 months to 25 years





C

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the previously established minimal detectable change (MDC) for 2 of the 3 outcome measures at follow-up

: defining the MDC for 2 of the 3 outcome measures at follow-up

- 3.5 econ
- AB 2
- 30 S S: 2 epe on

of patients had a positive outcome





# COMPARISON OF PATIENTS WITH A POSITIVE OUTCOME (PO) VS NON-POSITIVE OUTCOME (NPO)









# FUTURE RESEARCH

Future research should seek to



# CLINICAL RELEVANCE

CBB programs provide \_\_\_\_\_ ,  
for participants to \_\_\_\_\_ the  
of PD.

Individuals \_\_\_\_\_ to  
participate to \_\_\_\_\_  
\_\_\_\_\_ , especially \_\_\_\_\_  
\_\_\_\_\_.



R



# THANK YOU!

- ! Renée Hakim, PT, PhD, Board Clinical Specialist in Neurologic Physical Therapy emeritus
- ! Dana Maida, PT, DPT, Board Clinical Specialist in Geriatric Physical Therapy
- ! Jennifer Schwartz, PT, DPT, Board Clinical Specialist in Neurologic Physical Therapy
- ! Mike Ross, Board Clinical Specialist in Orthopedic Physical Therapy
- ! The University of Scranton Physical Therapy Department faculty and staff
- ! Rock Steady Boxing Bucks County





# THANK YOU!



# NY QUESTIONS

