



AAN 72nd ANNUAL MEETING ABSTRACT

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EMBARGOED FOR RELEASE UNTIL 4 P.M. ET, WEDNESDAY, MARCH 4, 2020

Abstract Title: Rock Steady Boxing (RSB) participants with Parkinson's disease have better quality of life and lower burden of non-motor symptoms than non-participants

Press Release Title: Can Boxing Improve Quality of Life for People with Parkinson's Disease?

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Objective: To compare demographics, self-reported symptom burden, Quality of Life (QoL), and Exercise Self-Efficacy (ESE) between RSB participants and non-participants.

Background: RSB is a non-contact boxing program for individuals with PD. The 90-minute group classes focus on agility, balance, and speed training. There are 43,500 participants at 871 RSB sites.

Design/Methods: A 20 minute, 61-question anonymous survey on SurveyMonkey®, which included the Parkinson's Disease Questionnaire-39 (PDQ-39) and the Self Efficacy for Exercise (SEE) Scale, was completed by adults with PD who have heard of RSB. The survey was distributed via e-mail and social media by RSB Inc. and the Parkinson Foundation from 7/2018 to 2/2019. Difference in demographics and assessment outcomes between participants and non-participants were analyzed using chi-squared test or fisher's exact test for categorical variables and Wilcoxon test for continuous variables.

Results: Of 2,054 individuals enrolled in the survey, 1,709 were eligible for analysis. 1,333 were current participants, 166 previously participated, and 210 never participated in RSB. RSB participants were a mean age of 69, 59% male, and 96% Caucasian. Compared to non-participants, a higher percentage of participants were retired (76 vs 65%, $p < 0.01$) and married/partnered (85 vs 80%, $p = 0.03$). There was no difference in years since PD diagnosis or Movement Disorders specialist use (66 vs 62% respectively). The majority of participants reported improvement in: social life (70%), fatigue (63%), fear of falling (62%), depression (60%), and anxiety (59%).



Compared to non-participants, current participants had better PDQ-39 scores (25 vs 32, $p < 0.01$) and better SEE scores (54 vs 48, $p < 0.01$), indicating better QoL and ESE. 99% of current and 94% of previous participants recommend RSB to others with PD.

Conclusions: This is the largest analysis of RSB use in PD, and demonstrates that RSB participants have improvement in non-motor symptoms of PD, and compared to non-participants have significantly better QoL and ESE.