Methods: The bootcamp consisted of 4 days of PD-specific exercise sessions, educational workshops (strategies for disease management) and social interactions. An online questionnaire prior to the program collected demographic, clinical information and overall exercise habits and preferences. At one month follow-up, participants filled in an online questionnaire, assessing satisfaction, preferences, problems, and usefulness of the program.
Results: All 8 Participants had favorable feedback, with 100% feeling "very satisfied", "likely to attend future events" and "would recommend to another person with PD". It was the first bootcamp for all and 5/8 (62,5%) felt that much of the exercises and activities were new to them. The 2 favorite training sessions that participants enjoyed most were: dual task cognitive stepping (6/8; 75%) and warm-up with dance-like movements (6/8; 75%). The 2 less favorite sessions were: Nordic walking (2) and boxing training (2). No injuries or major problems were reported by patients except 1 patient that could not do boxing due to wound in her finger. The bootcamp was considered very helpful (7/8; 87,5%) and helpful (1/8; 12,5%) in helping participants manage their current and future exercise habits. At one month follow-up 6 participants reported making some changes in their exercise routine after the camp, namely: "more frequently I do exercise"; "Introduced power up breathing", "Taking daily commitment to exercise seriously", Joined a gym to do more exercise", "I do more walking periods and cognitive games". One participant mentioned "Not really changed anything I need more time in my day."
Conclusion: Our results suggest that the bootcamp was well-received by these 8 individuals with mild and moderate PD.

P22.09

Boxing as an alternate treatment for sleep disorders in individuals with Parkinson's disease: A feasibility study
Linda Denney, Cynthia Ivy, Holly Johnson, Michelle McKay, John Manning, Marcus Webster, Patricia Pohl*
Northern Arizona University, Phoenix, Arizona, USA

Over 95% of individuals with Parkinson's disease (PD) suffer from at least one sleep-related dysfunction. Sleep behavior disorder (RBD) and excessive daytime sleepiness impact mobility and increase risk of falls. Meditative and multi-modal exercise have been shown to improve sleep in individuals with PD. It is unknown if there is a relationship between the intensity of exercise and sleep quality. Boxing is a high-intensity exercise that has become a popular option with the PD community and results in improved mobility. The purpose of this feasibility study is to determine if a high-intensity exercise, i.e. boxing, has an effect on sleep and daytime sleepiness and the degree to which change in sleep impacts mobility in individuals with PD. Six community-dwellers with PD with Hoehn & Yahr scores of I-II and between the ages of 48–71 years participated in a supervised community-based, bi-weekly 6-week boxing program. Participants were fitted with a heart rate monitor during training and encouraged to exercise at 80–85% of their maximum heart rate. Training consisted of 30-minute boxing sessions one-on-one with a certified boxing coach. The training included combinations, heavy bag and focus mitt drills. Participants wore hand wraps and boxing gloves, however no sparring was involved. An occupational, physical therapist or student supervised training and led brief warm-up and cool-down exercises. Outcome measures for sleep quality, daytime sleepiness, depression, balance, mobility, and upper limb performance were taken at baseline, after 3-weeks, 6-weeks, and 12-weeks. Participants trained at 60–85% of their target heart rate. Scores improved for the Parkinson's disease Sleep Survey and Epworth Sleep Scale for daytime sleepiness within the first 3 weeks of training. Significant improvement was recorded at 12 weeks for the Hamilton Depression Scale (p=.02) and in the dual task Timed Up-and-Go from 3–12 weeks (p=.04). Participants reported improvements in symptoms and provided feedback including "…the quality of my sleep is better", "I fell asleep 1.5 hours earlier than normal" and "I can go back to sleep now; it's nice". The results of this study suggest that a community-based boxing program is feasible for adults with PD and may improve sleep and mobility.

P22.10

Acceptability of a novel trampoline intervention in rehabilitation for Parkinson's disease. Perceived barriers and facilitators
Josefa Domingos[1], Catarina Godinho[2], John Dean[3], Katarzyna Śmiłowska[4], Filipe Melo[5]*
[1] Department of Neurology, Donders Institute for Brain, Cognition and Behaviour, Radboud University Medical Center | Lab of Motor Behavior, Sport and Health Department, Faculty of Human Kinetics, Univ. of Lisbon, Portugal, Nijmegen, The Netherlands, The Netherlands
[2] Centro de Investigação Interdisciplinar Egas Moniz (CiiEM), Instituto Universitário Egas Moniz, Almada, Portugal
[3] Triad Health AI, Aurora, Colorado, USA
[4] Silesian Center of Neurology, Poland, Poland
[5] Laboratory of Motor Behavior, Sport and Health Department, Faculty of Human Kinetics, University of Lisbon, Lisbon, Portugal

Background: Supervised programs that challenge balance and drive motor-cognitive processes in similar ways as in real-life have recently been recommended to prevent falls in Parkinson's disease (PD). Trampoline training, where individuals can safely practice weight shifting, respond to unexpected slips/trips and train controlled falls better simulate such real-life situations.
Objective: To assess the acceptability of a supervised trampoline program (Bounce4PD) in persons with PD (PwP).
Methods: Ethical approval was obtained at the University of Lisbon (CEFMH n.11/2018). Participants received their usual physiotherapy care at the Parkinson Association plus one or two trampoline sessions at a local trampoline gym (Bounce Inc., Lisbon). Participants were included according to therapist's best clinical judgment. After 3 months, participants completed a questionnaire evaluating: (1) General demographic and clinical information; (2) participants' satisfaction; (3) perceived barriers and facilitating for participation; (4) perceived benefit of the program in managing their disease; (5) adverse events; (6) reasons of absences; (7) interest in continuing to participate; (8) if they would recommend it to another person. Trampoline sessions consisted of high-amplitude, multidirectional movements with increasing complexity and speed (fig.1). Cognitive exercises were added targeting attention, working memory and executive function.
Results: Thirteen PwP (out of 15 participating) responded to the questionnaire at follow-up. All 13 participants had a diagnosis of PD, an average mean age of 9 years, Hoehn & Yahr between I-IV. Participants were "very satisfied" (7/13) or "satisfied" (6/13) with the program. Adverse effects were mild (e.g. "feeling tired", excessive sweating). Transportation, physical disability and dependency on others were the main barriers for participation. Caregiver support, easy transportation, perceiving the benefits and flexibility in schedules were main facilitators. Reasons for absence included: unexpected medical problems (6), taxi strikes (1), medical appointments (3) and work-related issues (1). Patients had favorable perceived benefit (80% very useful; 20% moderately useful) and all referred that they were willing to continue in the program and recommend it to others.
Conclusions: Our results suggest that training on a trampoline combining balance and cognition was well received and safe for PwP. It may represent an effective alternative mode of training in a salient and safe manner in PD.