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## Perceived Impact of Non-contact Boxing on Daily Life and Occupational Participation at Home Among Individuals with Parkinson's Disease

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# Perceived Impact of Non-contact Boxing on Daily Life and Occupational Participation at Home Among Individuals with Parkinson's Disease

Kristen Bignal; Susan MacDermott, OTD, OTR/L; Becki Cohill, OTD, OTR/L

## BACKGROUND

Parkinson's disease is the second most common neurodegenerative condition in the United States and is characterized as progressive loss of motor and non-motor symptoms affecting nearly all daily occupations (Son & Choi, 2018). Daily occupations are defined as "...the personal activities that individuals choose or need to engage in and the ways in which each individual actually experiences them." (AOTA, 2014, p. 1237). Community programs and organizations, including non-contact boxing, offer exercise classes to alleviate symptoms of Parkinson's disease and sustain quality of life. Participants for this study were recruited from a program called "Rock Steady Boxing" that is specifically aimed to combat the onset or progression of Parkinson's disease symptoms (Combs et al., 2011).

## PURPOSE

**Determine whether individuals with Parkinson's disease perceive an impact on their daily life and occupational participation at home secondary to participating in non-contact boxing.**

### Objectives:

- I. Assess needs through research and literature review
- II. Observe and participate in non-contact boxing classes
- III. Recruit participants
- IV. Interview participants
- V. Transcribe interviews and code data
- VI. Develop themes and summarize results
- VII. Provide educational session for non-contact boxing participants and family

## METHODS

Seventeen participants (n=17) from all four levels of classes were recruited through convenient sampling at Rock Steady Boxing Headquarters gym in Indianapolis, Indiana. Participants' perceptions were captured through use of in-person semi-structured interviews.

### First 6 Interview Questions

1.	How long has it been since you were diagnosed with Parkinson's disease?
2.	How long have you been participating in the program?
3.	Share with me your experience with the boxing program.
4.	Can you please describe your current self-care routine? These are the activities you do to take care of yourself including going to the bathroom, showering, dressing, grooming, etc.
5.	Did your self-care routine change as a result of your Parkinson's disease diagnosis?
6.	Has your self-care routine been further influenced/changed since participating in the boxing program?

Other topics addressed during the interview include instrumental activities of daily living (e.g., health and home management), sleep, intimacy, leisure interests, and any other topic introduced by the participant.

### Transcription and Analysis

Interviews were audio recorded and transcribed using speech recognition software. Transcript analysis followed Braun and Clarke's phases of thematic analysis utilizing an inductive approach to code data (Braun & Clarke, 2006).

## RESULTS & THEMES

The participants in this study consistently stated non-contact boxing impacts psychosocial aspects resulting in an overall positive benefit on everyday life. According to the participants (n=17) from the Rock Steady Boxing headquarters gym, three main overarching themes were explored.

### Psychological Benefits

- Boosts psychosocial health
- Increases confidence

### Sense of Community

- Feeling understood and supported
- Gateway to new social relationships
- Comradery

### Framework to Develop Routines

- New routines
- Well-balanced lifestyle

*"But if I go to Rock Steady... I'm good for the whole day. Energizes me. And like I said, then I forget that I'm having a bad day. It just clears up."*

*"I feel at home here. I feel like my friends are here. The people who understand me are here."*

*"I believe I would be way worse condition if I wasn't doing Rock Steady... it's having a place to go to, having a regular schedule, the social part as well and stuff."*

## DISCUSSION

Overall themes identified non-contact boxing's impact on daily life and overall health and wellness. Discussion of the direct impact of non-contact boxing on participation in specific occupations in the home environment did not conclude consistent results. Due to variables such as medication, age, and other underlying conditions, participants expressed difficulty identifying non-contact boxing's direct impact on their ability to participate in specific occupations. This project adds to the literature by shifting the perspective to view participants' thoughts, allowing occupational therapists and other health professionals the opportunity to better serve individuals with Parkinson's disease, promote engagement in meaningful occupations, and increase quality of life.

## FUTURE RESEARCH

Triangulation strengthens research by providing a second source of data, such as direct observation (Portney & Watkins, 2009). It is recommended that future research adds in extended observations in the home to strengthen the interpretation of data. Subsequent research is necessary to continue learning more about the impact of non-contact boxing on occupational participation among those with Parkinson's disease.

### References

- American Occupational Therapy Association. (2014). Occupational therapy practice framework: Domain and process (3rd ed.). *American Journal of Occupational Therapy*, 68(1), S1-S48. <https://doi.org/10.5014/ajot.2014.682006>
- Braun, V. and Clarke, V. (2006) Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101. <http://dx.doi.org/10.1191/1478088706qp0630a>
- Combs, S. A., Diehl, M. D., Staples, W. H., Conn, L., Davis, K., Lewis, N., & Schaneman, K. (2011). Boxing training for patients with Parkinson's disease: A case series. *Physical Therapy*, 91(1), 132-142. <https://doi.org/10.2522/ptj.20100142>
- Portney, L. G., & Watkins, M. P. (2009). *Foundations of clinical research: Applications to practice* (3rd ed.). Pearson Education.
- Son, H. G., & Choi, E.-O. (2018). The effects of mindfulness meditation-based complex exercise program on motor and nonmotor symptoms and quality of life in patients with Parkinson's disease. *Asian Nursing Research*, 12(2), 145-153. <https://doi.org/10.1016/j.anr.2018.06.001>

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