

# Enhancing Quality of Life Through Exercise in Adults with Intellectual Disabilities Joanne K. Parker, OTD-S; Dr. K Megan Carpenter, OTD, OTR/L, SCFES Department of Occupational Therapy | University of Alabama at Birmingham Dr. K Megan Carpenter, OTD, OTR/L, SCFES | CrossFit Laminin

# Introduction

- Adults with intellectual abilities tend to experience impaired mobility and functional performance as they grow older which can have a significant impact on the individual's quality of life (Jacob et al., 2023).
- Previous literature has found that this population faces many barriers to physical activity, which leads to numerous health conditions related to inactivity (Bodde & Seo, 2009).
- There is a need for further research to be conducted to support the findings of increased quality of life as well as advocating for increasing opportunities for adults of this population to engage in community exercise programs.
- This project aims to extend previous research by producing a program development study and using a standardized assessment to advocate for an enhancement in quality of life for adults with an intellectual disability.

# Methods

Participants were recruited via flyers and snowball sampling. Inclusion criteria included:

- Ages 18-50 years old
- Diagnosed intellectual disability
- Ability to follow instructions independently
- Ambulatory
- Have transportation to and from the gym
- Speak/understand English

#### Program details:

- Participants engaged in exercises using their own body weight and occasional use of available low-tech equipment.
- Each session composed of a warmup, cardio, strength, and cool down component that included jumping jacks, squats, modified pushups, modified planks, and light jogs.

### After being selected:

- Participants completed WHOQOL-BREF before and after completing the program
- The program consisted of thirty-minute sessions twice a week for 7 weeks.

# Results

- The post-program scores showed an overall increase in scores for Domain 1, the physical domain, in each participant as seen in Table 1.
- When looking at individual questions, specifically question 2: "How satisfied are you with your health?", all participants increased by 1 point as seen in Table 2.

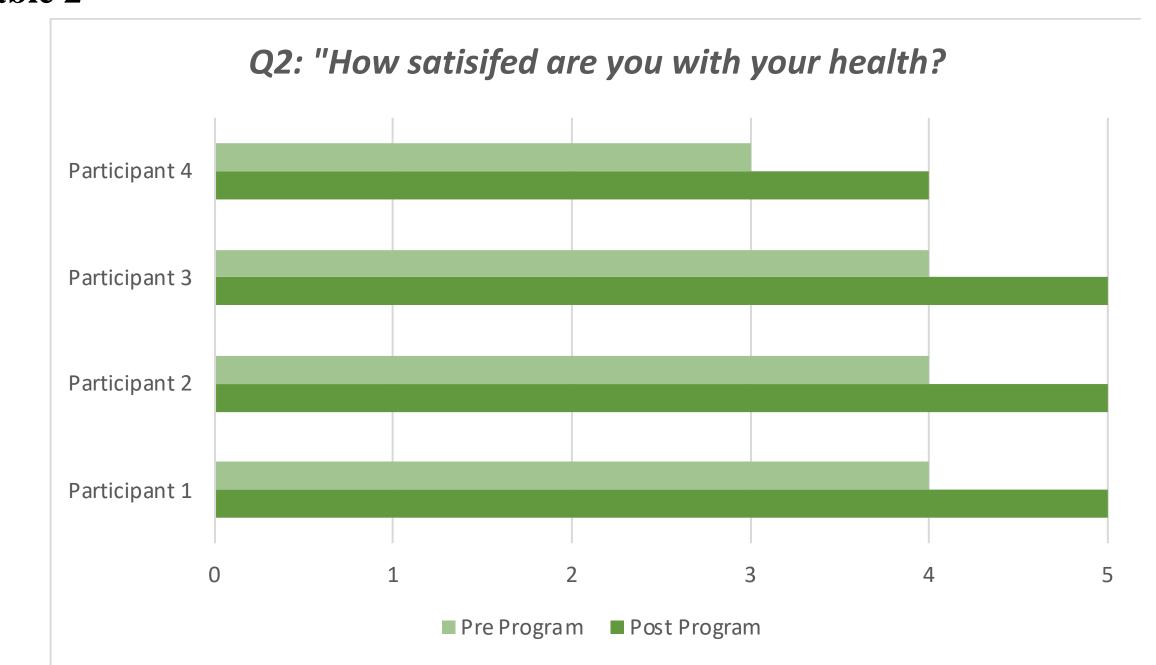
Table 1

Participants	Pre-Program	Post-Program
Participant 1	88	94
Participant 2	88	100
Participant 3	63	81
Participant 4	56	69

- Another question that was noted to have an increase in scores is question 17: "How satisfied are you with your ability to perform ADLs?". Participants 1, 3, and 4 had a 1-point increase from their preprogram assessment score while Participant 2's score remained the same.
- When broken down for each participant, each participant had score increases in three or more questions.

# Discussion

Table 2



The results of this study provide support for previous research that has suggested an increase in quality of life in the lives of adults with intellectual disabilities when engaging in exercise and functional fitness.

# Discussion continued

- Each participant produced an increase in scores for the physical domain which suggests each participant experienced an increase in energy and mobility and a decrease in fatigue, pain, or discomfort.
- All participants increased in their satisfaction of their overall health suggesting their engagement in exercise increased their positive perception of their health. Most participants also experienced an increase in scores in their satisfaction of engagement in their everyday tasks and activities.
- Caregivers of participants provided feedback that supported these results as participants discovered their liking for specific exercises.
- When engaging in exercise, these adults can strengthen muscles and increase endurance that can impact their performance of everyday activities.

# Conclusion

When given the opportunity to engage in exercise, this population of adults displayed an increase in their satisfaction of their health and performance in their ADLs as well as an increase in their physical health. Engagement in functional fitness plays a role in increasing the individual's physical and mental wellbeing leading to an overall better quality of life.

## References

Bodde, A. E., & Seo, D. C. (2009). A review of social and environmental barriers to physical activity for adults with intellectual disabilities. *Disability and Health Journal*, 2(2), 57–66. <a href="https://doi.org/10.1016/j.dhjo.2008.11.004">https://doi.org/10.1016/j.dhjo.2008.11.004</a>

Jacob, U.S., Pillay, J., Johnson, E., Omoya, O. & Adeodokun, A. (2023). A systematic review of physical activity: Benefits and needs for maintenance of quality of life among adults with intellectual disability. *Front. Sports Act. Living, (5)*. <a href="https://doi.org/10.3389/fspor.2023.1184946">https://doi.org/10.3389/fspor.2023.1184946</a>

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