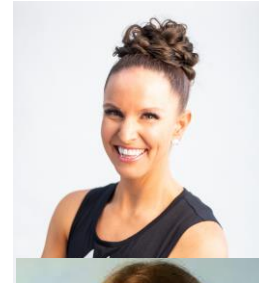


Process Evaluation of a Remote Exercise Program for Individuals with Down syndrome



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BACKGROUND : Individuals with Down syndrome have low physical activity levels, and the COVID-19 pandemic caused many of the existing programs to shut down. Most existing virtual exercise options were not tailored to the specific needs and capabilities for individuals with Ds. We translated an existing physical therapy-based exercise program (Mann Method PT Program) into a remote program, accommodating both the physical and social needs of participants with Ds to ensure successful participation. The primary question was: **How suitable, successful and satisfactory was the PT-based remote exercise program for individuals with Ds implemented?**

DESIGN: Mixed-methods process evaluation

METHODS: Adults with Ds between 18 and 35 years participated in a 12-wk remote exercise program. Data collection included:

- Recruitment (descriptive)
- Participant attendance (% attendance)
- Program adherence (minutes in individual heart rate zones)
- Participant satisfaction (qualitative survey questions on satisfaction with the program).

RESULTS:

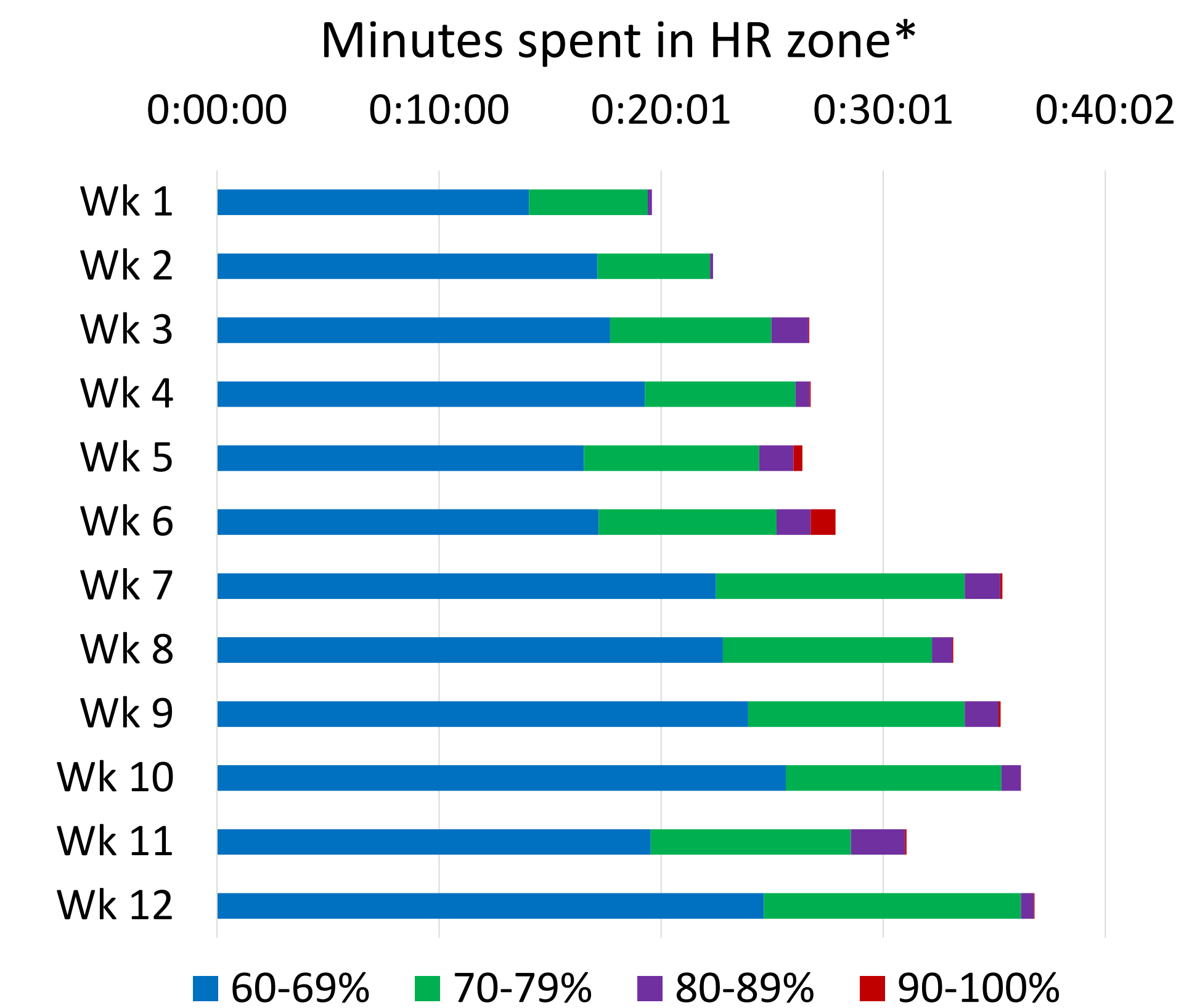
- Due to the wide interest in the program, we included 20 participants at once.
- One participant dropped out early, attendance of the remaining participants was 93%.
- Participants reached 60% of maximal heart rate for >20 minutes/session.
- Participants were very satisfied with the program.

The PT-based remote exercise program was suitable, successful and satisfactory for individuals with DS



Remote Mann Method PT Program

- 12 wks, 3x/wk, 1-hr Zoom Sessions
- Jan 2021-April 2021
- Focus on:
 - Strength: Multi-Joint Foundational Exercises and Hip Strengthening
 - Balance: Vestibular and Balance exercises that target the visual-vestibular system
 - Aerobic capacity: 20 min between 50-65% first, later >65% of max heart rate



Wk	% Attendance	Minutes HR 50-59%*	Minutes HR 60-69%*	Minutes HR >70%*
1	96	18.39	14.04	5.32
2	100	19.51	17.09	5.12
3	98	22.48	17.43	8.58
4	96	21.38	19.16	7.28
5	93	16.39	16.32	9.51
6	95	18.34	17.12	10.41
7	93	18.55	22.29	12.54
8	95	19.46	22.48	10.23
9	88	19.58	23.56	11.23
10	89	17.52	25.38	10.35
11	86	20.02	19.33	11.32
12	88	18.37	24.39	12.12
Total	93	18.39	14.04	5.32

* Data presented for n=14



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