Implementing a Fitness and Nutrition Program for Special Olympics Athletes

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Introduction

- Only 17-30% of individuals with ID meet the recommendations for daily exercise [1].
- Populations of individuals with ID have higher BMI, lower cardiovascular fitness and lower muscle strength compared to the general population [2].
- Individuals with ID also have many dietary challenges necessitating nutritional education and interventions [3].
- One study following four athletes with ID, showed that pairing athletes with and without (unified sports) resulted in a positive change in social self-concept for athletes with ID [4].
- Given the above, we:
    - Created a 6-week pilot training and nutrition program for Special Olympics Vermont (SOVT).
    - Paired athletes with ID with college athletes without ID to promote wellness during the athlete's off season.

Methods

- Paired 23 undergraduate students (14 UVM/ 9 Castleton) with a SOVT athlete in their community.
- College and SOVT athletes met for weekly wellness meetings, followed a daily exercise plan and had a weekly check-in phone call for a total of six weeks.
- A training manual was created to standardize the weekly activities.
- Our study investigated the feasibility of pairing SOVT athletes with college athletes and the outcome of the weekly wellness meetings which consisted of daily exercise plans and dietary counseling.
- Surveys assessed the college student's pre- and post- attitudes towards working with individuals with ID, SOVT athlete pedometer data, and challenges experienced with the program

Results

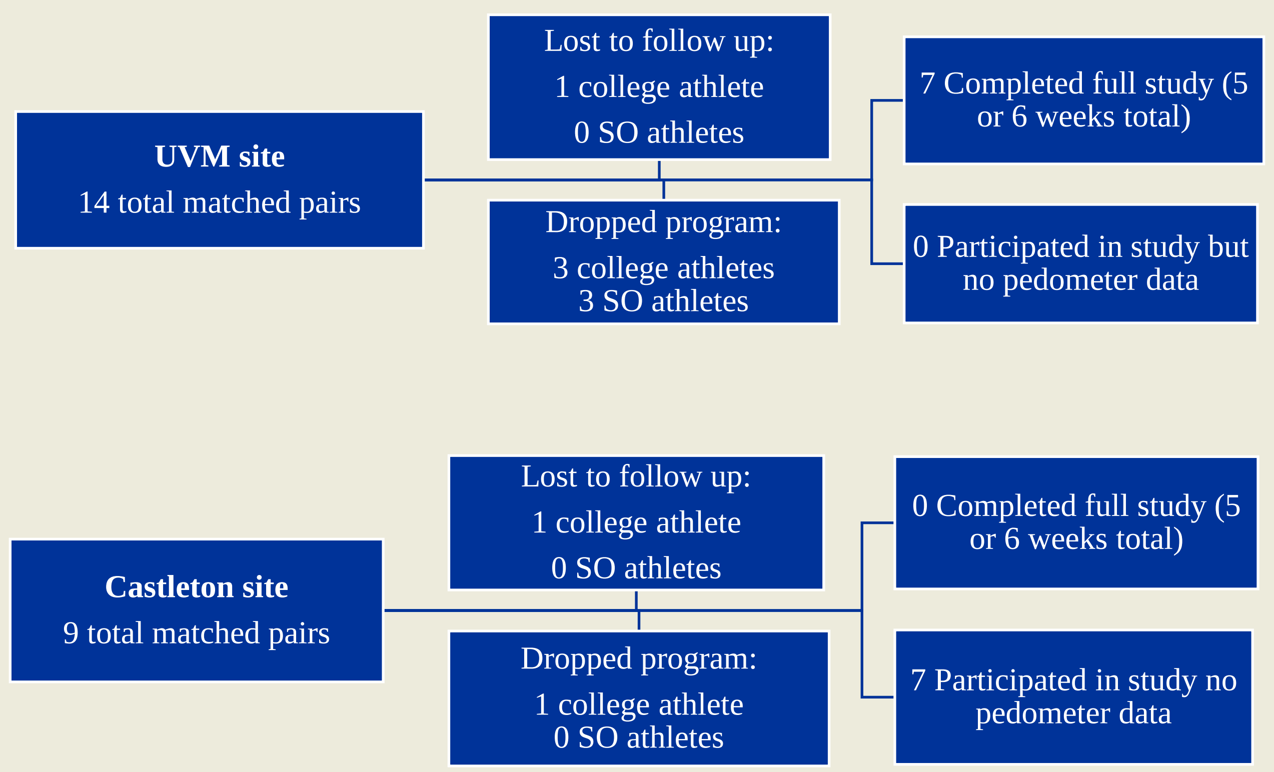
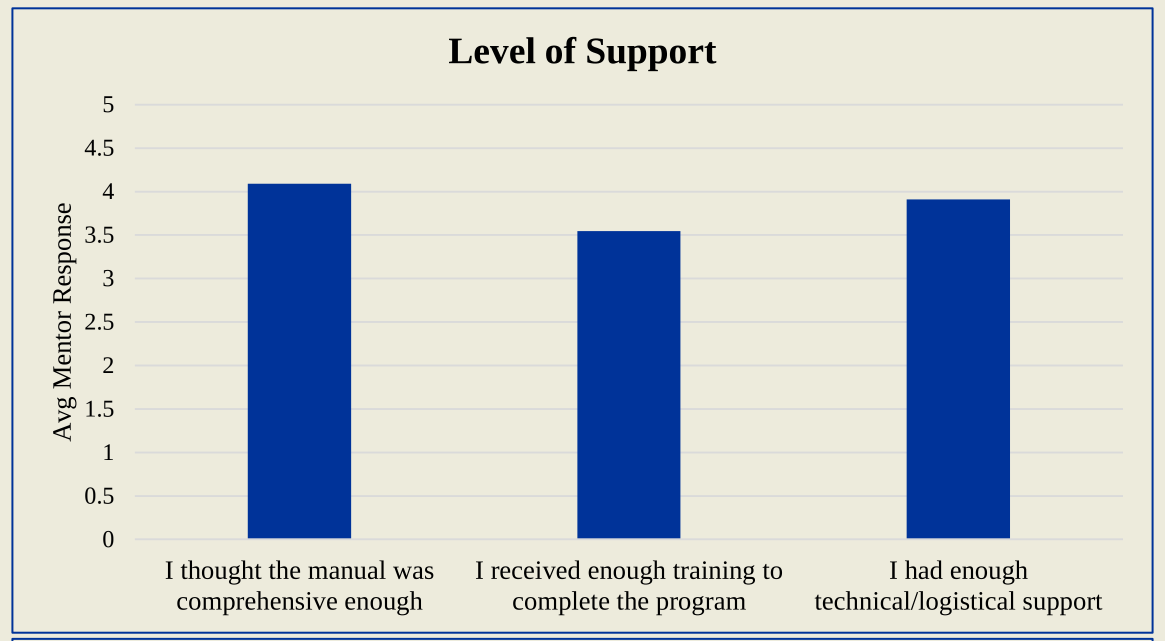


Figure 1. Schematic of participation and outcomes: These two flow charts describe the various outcomes that our original 23 pairs encountered by the end of our program, separated by UVM vs. Castleton site location.



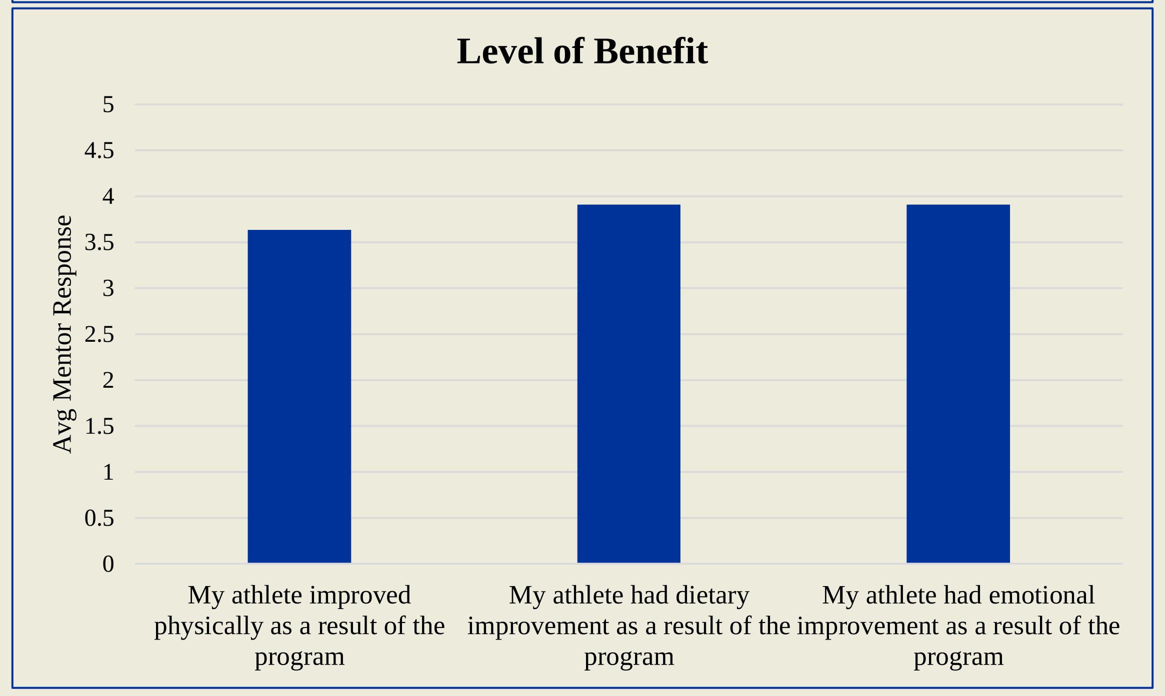


Figure 2. Post-program survey results: These two graphs gauge mentor's overall satisfaction with the level of support provided during the program and mentor's perceived benefit for their SOVT athlete. Response options were as follows: (5-strongly agree, 4-agree, 3-neutral, 2-disagree, 1-strongly disagree). The average response of 11 mentors is presented without any statistical analysis.

Discussion

- Due to small sample size and data collection issues, we were unable to perform quantitative analysis and tests for significance.
- Although 23 pairs started the program, only 7 completed the full program with pedometer data, suggesting an overall lack of adherence (Fig. 1).
- The majority of 11 mentor respondents to our post-program survey agreed with the usefulness of the handbook and having adequate support. However, they had a more neutral attitude towards the level of orientation training (Fig. 2).
- Mentors perceived a positive effect on SOVT athlete's fitness, diet and emotional health. This suggests that this has the potential to be a successful program for long-term implementation and adherence (Fig. 2).

Suggestions for Future Directions

- Research:
    - Collect height and weight data for BMI calculations, as an alternative to using pedometer data.
    - Improve and consolidate data collection techniques.
- Programming:
    - Implement program into a college course curriculum.
    - Have a mandatory pre-program orientation to explain data collection
    - Start with a larger sample size to accommodate for pairs who drop the program or are lost to follow-up.

References

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