



FITNESS THROUGH SPORT

EVALUATION REPORT



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TABLE OF CONTENTS

4 INTRODUCTION

Overview of Fitness through Sport

5 LITERATURE REVIEW

6 EVALUATION METHODS

Aims, Recruitment, Surveys & Focus Groups

7 RESULTS - SAMPLE

Survey and Focus Group Demographics

8 RESULTS - SURVEYS

Athlete, Caregiver, Coach, Program Coordinators and Staff

14 RESULTS - FOCUS GROUPS

Athlete, Caregiver, Coach, Program Coordinators and Staff

18 CONCLUSION

19 RECOMMENDATIONS

21 REFERENCES

To be a great athlete, you must be a healthy athlete. Fitness through Sport (FTS) describes the promotion of health and fitness within sports practice.

Special Olympics (SO) has offered fitness and wellness programming since 2016. SO data shows improved outcomes for those participating in fitness programming, including reduced weight and blood pressure, with the biggest changes occurring for those with poorer baseline health. Similarly, in 2021 fitness programming was shown to be effective in reducing resting heart rate and blood pressure. Although participation has rapidly grown and was at an all-time high in 2021 with over 437,000 athletes participating, fitness programming is still not reaching all Special Olympics athletes.

Some efforts have been made to integrate health and fitness programming within the sports setting. An initial series of Fitness and Strong Minds resources for coaches were launched in 2018. Online fitness training courses for sports coaches and “fitness coaches” were launched through the SO Learning Management System in 2020 and have been translated into multiple languages. As of March 2023, 5,380 people have completed the Fitness for the Sport Coach module and 4,346 people have completed the Fitness Coach training. SO Health grantees reported an additional 14,835 coaches trained to support health and fitness in the 2021-2022 grant cycle. Additionally, Programs have reported that athletes have also been trained to lead health and fitness efforts for their sports team, but limited data is available on the reach of this type of programming.

While these data show signs of success, less is known about the scope of current health and fitness programming being conducted through sports trainings within SO. This purpose of this evaluation was to explore best practices in the literature, examine current practices within SO Programs, and to envision future steps for Fitness through Sport (FTS) strategy. Results will inform recommendations and action plans for future FTS projects.



LITERATURE REVIEW

Health is a major factor in athletic performance. An athlete who is more fit, eating healthier meals, drinking water, getting sleep, and reducing illnesses are less likely to miss practice and have more energy during training and competitions. A common assumption is that there are natural health benefits from participation in sports. While data supports sports participation can increase physical activity minutes, fitness levels, and even self-esteem, other health behaviors have not shown to have a natural connection. For example, Only 50% coaches and caregivers and 30% athletes are considered health literate.⁵ This could mean that athletes are less sure of how to make healthy choices outside of sports participation.

The World Health Organization defines health promotion (HP) as “the process of enabling people to increase control over and to improve their health.” One effective strategy is to develop HP interventions that utilize the socio-ecological framework within settings, such as schools, hospitals, workplaces, or cities—or in this case, sports. Recent literature has found sports clubs to be effective settings for HP.⁷

Sports coaches play a critical role in HP initiatives within the sport setting. Sport coaches are perceived to be good role models that can provide encouragement, announce related opportunities, and directly provide health education and advice to athletes.⁸ In addition, sports coaches may liaise with parents or caregivers, encouraging them to support their athletes’ health behaviors. Overall, HP activities completed by coaches are perceived positively by those involved in sport. Studies show that coach-led HP activities contributed to decreased dropout, increased enjoyment in sport, and higher self-esteem.^{9,10}

While sports coaches play a crucial role in HP, some coaches perceive uncertainty about their role and a lack of knowledge on health topics as major barriers to effectively promoting health.^{11,12} Coaches have cautioned that they may lack the time and training to be the sole leaders of these initiatives.⁷ Therefore, sports organizations such as SO may consider other potential leaders to educate athletes about health behaviors. Programming led by health coaches,¹³ fitness professionals,¹⁴ and peer mentors¹⁵ have been proven effective leaders for people with ID in facilitating behavior change, but less is known about these leaders implementing programming through sports settings.

HP through the sports setting is a growing topic in literature. Although limited evidence is available on the benefits of this type of programming for people with ID, HP programming has been successful in the general population at improving health outcomes and increasing satisfaction among youth and adult athletes.

EVALUATION METHODS

The purpose of this evaluation was to learn from athletes, caregivers, coaches, and SO Program staff about current and ideal practices that promote health behaviors and improve health outcomes through sports participation in order to make recommendations for future resources, training, and programming in this space.

Aims



- (1) Describe best practices and desired programmatic approaches,
- (2) Explore leadership roles and training needs,
- (3) Understand expected outcomes and how they can be measured, and
- (4) Compile resource needs for programming.

Recruitment



SO Regional sport and health staff were consulted to determine the best Programs to invite to participate in this evaluation. Programs that were recruited for the evaluation had previously reported conducting some level of health promotion programming at sports practice.

Surveys



An electronic survey was conducted using Qualtrics XM. All stakeholder groups were asked questions regarding their perceptions of FTS, what types of programming exists, who leads programming, priority health topics, and if programming was yielding outcomes. Questions included 5-point Likert scales, single selection multiple choice, multiple selection, and a short answers.

Focus Groups



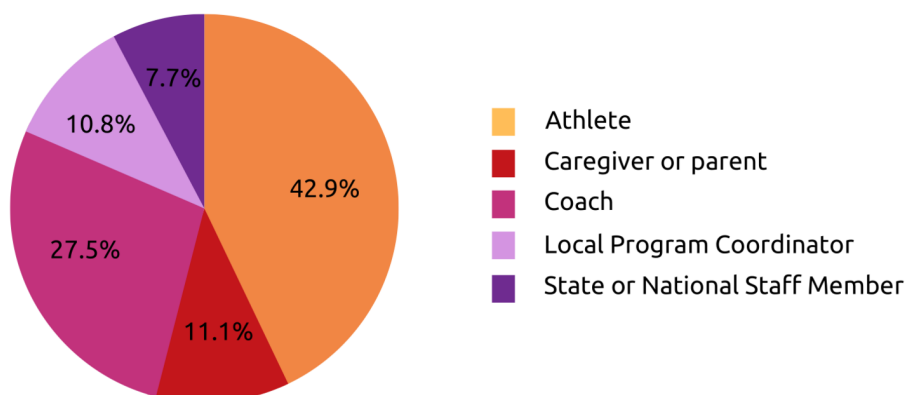
Focus groups were conducted according to role. Questions aimed to understand what health and fitness topics were a priority, how HP programming was currently being conducted, concepts of ideal programming, acceptability of specific programming ideas, and resource needs. When interested participants could not attend focus group times, individual in-depth interviews were conducted using the same questions.

RESULTS

Sample

Survey

- **324 participants representing 17 countries** and six SO regions responded to the survey. 57.52% of participants were from the United States, and 75% of all participants have been involved in SO for six or more years.
- **Most of the survey respondents (n=139) were athletes.** Sports coaches were the second largest respondent group with 89 participants.



Focus Group

A total of nine focus groups and three interviews were conducted across the four main stakeholder groups (Table 1).

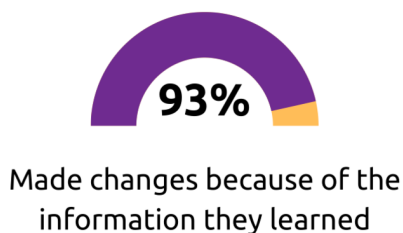
Table 1: Focus group and interview participants by stakeholder group

Stakeholders	Focus Groups	Interviews	Total Participants
Athletes	2		9
Caregivers	3		8
Coaches	2	3	7
Program Staff	2		8
Total	9	3	32

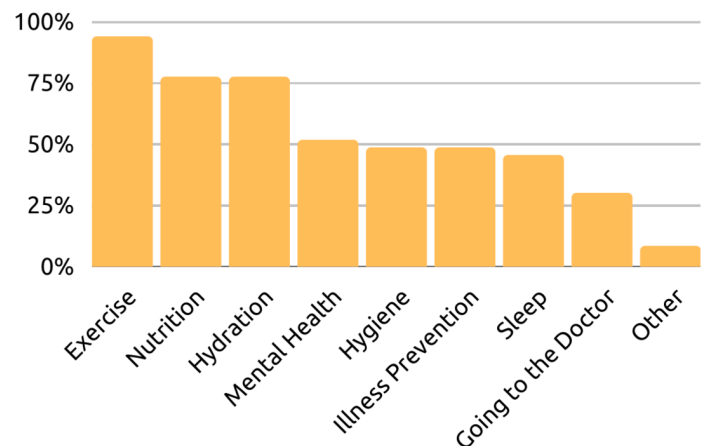
Survey Responses

Athlete Responses

Of the 139 athletes who participated in the survey, 67% were from the United States and 69.35% have been trained and serve as an Athlete Leader for their SO Program.

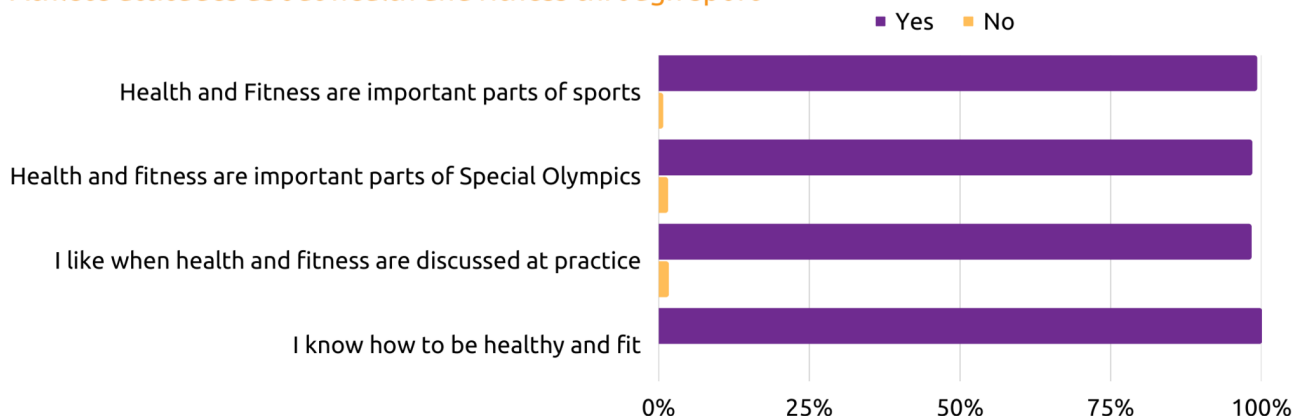


Athletes report of topics discussed at sports practice



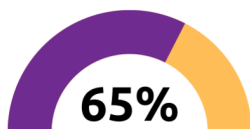
- Most athletes are taught by their SO sports coach (81.25%), or Athlete Leaders (41.67%).
- 45.36% of all athletes reported learning about health and fitness at practice said that they talk about health and fitness weekly or at every practice.
- Most athletes reported learning about health and fitness through discussion (71.88%) and practicing exercises (76.04%), but some athletes reported learning from visual aids/activities (42.71%) or handouts (34.38%).
- Of athletes that reported that they do not currently learn about health and fitness at sports practice, 79.31% said that they would like to.

Athlete attitudes about health and fitness through sport

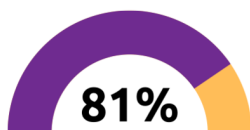


Caregiver Responses

A total of 36 caregivers responded to the survey and 52.78% were from the United States. Caregivers were mostly parents (86.11%) or other family members (8.33%).

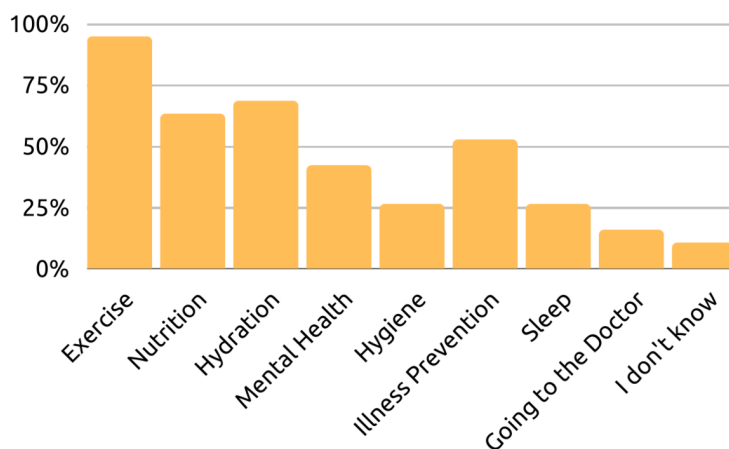


Caregivers report athletes learning about health and fitness at practice



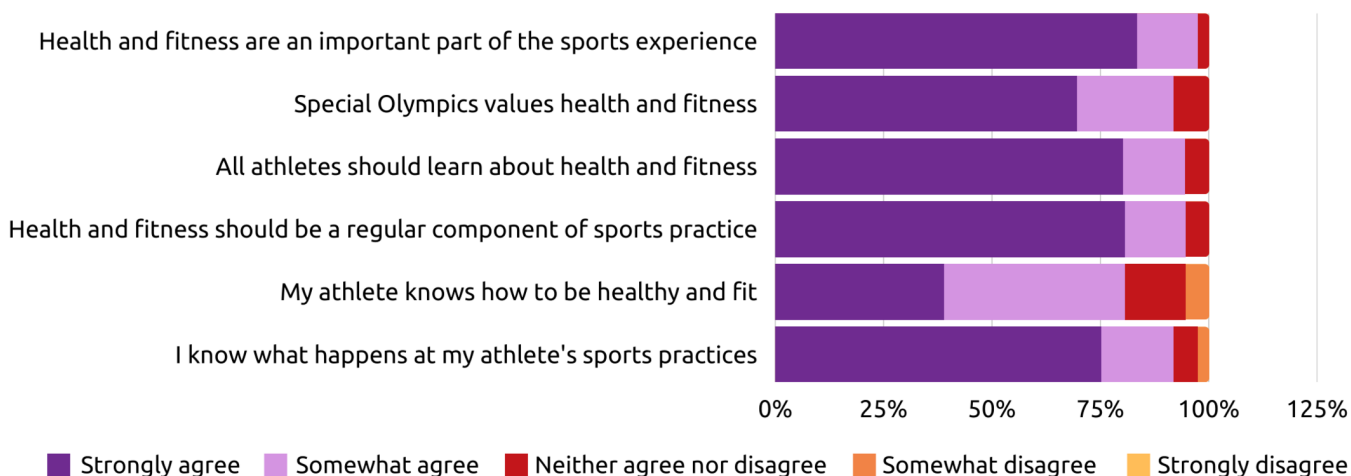
Caregivers felt athletes made changes because of the information they learned

Caregiver report of topics discussed at sports practice



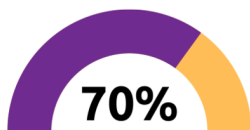
- 50% caregivers said athletes learned about health and fitness weekly or at every practice.
- 97.2% participant said that caregivers were involved in health and fitness promotion efforts with the team.
- Of caregivers that reported their athlete did not learn about health and fitness at sports practice, 80% said they would like them to.

Caregiver attitudes about health and fitness through sport



Coach Responses

A total of 89 sport coaches responded to the survey and 52.80% were from the United States. The average age of the athletes on coaches' teams varied widely and included youth and adult athletes and 70.65% of all sport coach respondents were formally trained on health and fitness.

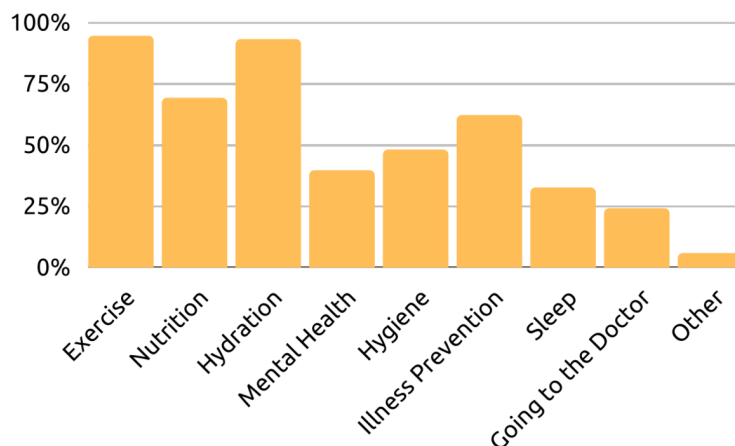


Coaches felt athletes made changes because of the information they learned at practice



Coaches report promoting health and fitness at sports practice

Coach report of topics discussed at sports practice



Evidence of athlete health and fitness changes as described by coaches:



Weight loss



Behavior change



More strength and stamina



Improved performance



Fewer injuries



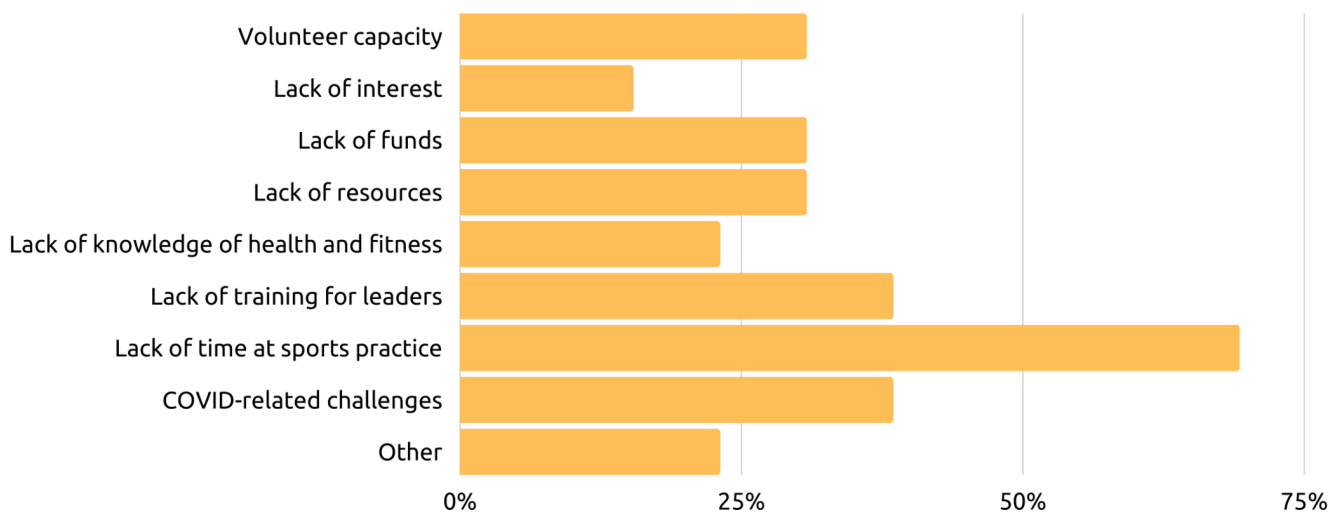
More confidence

- 70.00% coaches promote health and fitness weekly or at every practice.
- The duration of time spent on health and fitness promotion activities ranged from less than five minutes to more than 30 minutes, with most sports coaches reporting activities lasting five to 15 minutes (73.23%).
- Sport coaches reported that health and fitness discussions and promotion activities were primarily led by sports coaches (88.73%) and Athlete Leaders (38.03%), but health and fitness professionals (23.94%), caregivers (8.45%), and others (4.23%) lead activities as well.
- Health and fitness promotion activities include discussions around health and fitness (67.14%), practicing exercises (90.00%), visual prompts and activities (12.86%), handouts (15.71%), structured curriculum (12.86%), and other activities (5.71%).

Coach Responses

- 20.9% of coaches felt they were not able to promote health and fitness as much as they wanted during practice.
- 60.0% of coaches who reported they don't currently promote health and fitness said they would like to in the future.

Coach perceived barriers to promoting health and fitness at sports practice

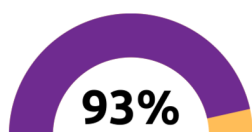


Coach attitudes about health and fitness through sport



Program Coordinators and Staff Responses

60 local and state/national coordinators and staff responded to the survey. There were 36 local coordinators, and they were primarily from the United States (66.67%). State and national staff were primarily from outside of the United States (66.67%). Across all coordinators and staff, most oversee sport (71.19%) and/or health (32.20%) as part of their role, with some also overseeing fitness, schools, community engagement, and development initiatives.

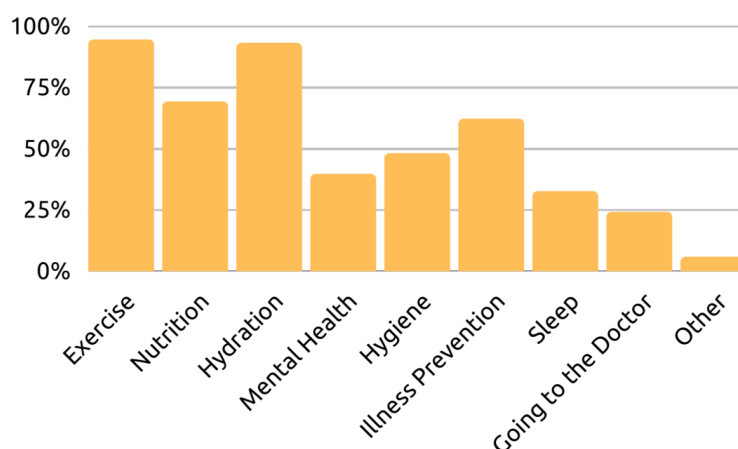


Programs encourage health and fitness promotion at practice



Coordinators/staff felt athletes made changes because of the information they learned at practice

Coach report of topics discussed at sports practice



Evidence of athlete health and fitness changes as described by coordinators/staff:



Program participation



Behavior change



Coach feedback



Improved performance



Weight loss



Success stories



Improved health data



Increased physical activity levels

- Programs encourage health and fitness promotion at practice by offering trainings for leaders (65.22%), providing teams with resources and materials (50.00%), providing health and fitness programs or curriculums for teams to follow (36.96%), and providing health and fitness content in coaches' newsletters and conferences (26.09%). Other (19.57%) Program level health and fitness promotion included fitness apps, fitness captains, providing healthy choices at practices and competitions, and developing online content.
- 32.61% Programs are collecting data on the impact of health and fitness promotion at practice, with reach, attendance, behavior trackers (Fit 5), frequency, fitness testing, lifestyle surveys, body mass index, and blood pressure listed as metrics collected.

Program Coordinators and Staff Responses

- Programs offered an in-person or virtual training session focused on health and fitness (82.76%) or embedded health and fitness into their overall training curriculum (62.07%)
- Of the four coordinators and staff that reported not currently encouraging health and fitness promotion at sports practice, all four (100%) would like to in the future.

Coordinator/staff attitudes about health and fitness through sport



Focus Group Feedback

Important Health and Fitness Topics

- Members of the focus groups confirmed that exercise, nutrition, and hydration were top priorities when considering what athletes need to know about health and fitness. A smaller number of stakeholders also mentioned supporting mental health and hygiene.
- **Focus groups were quick to shift to *how* athletes should learn about health and fitness after they discussed what they should learn.** Goal setting, increasing knowledge, changing attitudes, building social support, role modeling, and providing rewards were seen as critical strategies for behavior change.

Current Programming

Health promotion at practice is currently being conducted in a variety of ways:

- Leaders on the sports field encourage their athletes to be healthy by providing advice or resources (e.g., Fit 5).
- Sometimes visual aids and handouts are provided to help athletes understand concepts.
- Some teams brought in health and fitness professionals to provide education or individual and group plans.
- Most teams offer a warm-up and cool down. Some teams do conditioning exercises.
- Some teams instituted policies or rules that promote health, such as a “water only” rule.
- Many teams discussed holding fitness challenges that were discussed at practice, were to promote health and fitness outside of practice.
- Participants also discussed health and fitness initiatives that happen outside of practice, but that were perceived to them as related to the sports programming. Examples include: exercising at a fitness center with the team on non-practice days, an indoor mall walking program in the wintertime, and Unified Fitness Clubs.
- Technology (apps, social media, and video conferencing) have been utilized to promote health and offer fitness programming. Some participants set up their own a social media group for their team to share health tips and reminders.
- Fitness assessment and health screening were seen as critical for providing athletes, coaches, and family members with information that could improve their health and performance, yet few participants stated they currently had a system for collecting and sharing fitness data.



So sometimes when we have practice, we do our own little challenges like, ‘Hey. This week we’re now trying to work on drinking a lot, a lot of water and I’m down there, whoever drinks, the most water gets a prize’ or something they can do really fun during practice or um we do like a physical challenge like how many push-ups can everyone do.

– Athlete, Colorado, USA

Barriers to Health and Fitness through Sport

Participants recognized several barriers to promoting health and fitness through sport practice, including limited availability of healthy foods and beverage options in athletes' environment, a lack of support to be active, a lack of time and transportation to attend fitness programs, athletes' ability to comprehend and retain health education information, challenges with assessment of health and fitness outcomes, a misalignment of funding partners, and limited buy-in from coaches.



Some people really buy into it and it's great, but man it's like pulling teeth with some people... I really do think we have all the right materials and programs and whatnot in place it's just getting people. Like tonight on my coaches, training, I have, I think, seven people signed up...that's not a lot, but I even really hope they all come like might only have three or four and then I train them and then are they actually going to implement anything? So, it's just like, **it's kind of one hurdle over another.**

– Coach, Wisconsin, USA

Ideal Programming

When asked what they envisioned as ideal health and fitness through sports programming, participants provided a range of responses that include both the process and the results.

- **Within sports practice, participants offered several specific suggestions:** longer practices, proper warm-up and cool-down routines, sport-specific exercises for conditioning, structured health tips complemented by handouts or visual aids, and more structured practice sessions that lead to more moderate to vigorous physical activity.
- Participants also envisioned more support outside of their sports including increased caregiver support at home, in-person fitness programming that occurs between sports sessions or seasons, virtual programming such as exercise or cooking classes, and more fitness challenges.
- Assessment and tracking would benefit the programming in several ways including motivating athletes, providing data to coaches, and allowing Programs to seek more funding. Athletes suggested tracking weight and cardiovascular fitness. Coaches recommended trackers such as Fit 5.
- **Participants felt that ideal programming was possible** through the recruitment and training of leaders, the development of appropriate resources, and an increase in supportive partnerships and funding.
- Ultimately, there was agreement that **all programming should lead to healthier athletes.** Participants defined healthy as lower weight status, lower risk of diabetes, and more cardiovascular endurance.

Even if they still weigh the same, if they're healthier, have more endurance, more cardio or cardiovascular strength, their A1C's are good. That kind of thing then, I'm great, yeah, great.

– Coach, Missouri, USA

Key Leaders to Promote Fitness through Sport

Three key leaders were identified as playing a critical role in promoting fitness through sport in Special Olympics: Health and Fitness Professionals, Athlete Leaders and Coaches.



Health and Fitness Professionals

Participants felt that having a health or fitness professional support these efforts would be valuable. Specifically, participants suggested fitness professionals, dietitians, therapists, and doctors could support health promotion at practice and stated that a visit from a professional would increase the credibility of the health promotion efforts. Each professional would be able to assist based on their profession.

- Fitness professionals could build customized exercise routines for the team or individual team members.
- Dietitians could come to practice to support nutrition education or build individualized nutrition plans for athletes.
- Therapists and doctors could also play a role in health education.
- Most groups agreed that it may not be feasible to recruit health and fitness professionals to come to every practice due to their busy schedules. Instead, they felt health and fitness professionals could be involved in training coaches and Athlete Leaders and speaking at family/athlete workshops.



Athlete Leaders

All groups agreed that Athlete Leaders would be essential for leading health and fitness at sports practice. About half of the participants agreed they had a similar initiative in their program. Athlete Leader would have a complementary duties to those of the coach.

- Athlete Leaders were recognized as role models to their peers and can help to set the normative health behaviors on their team.
- Athlete Leaders should lead their peers in warm-up, cool-down, and conditioning exercises.
- Athlete Leaders could provide health tips and resources to their teammates. Visual resources and handouts could be helpful.
- Athlete Leader could be the spokesperson for their team when they noticed their teammates were not being offered healthy choices.
- Athlete Leaders could also communicate health and fitness resources and programming to team members because they are more in tune to state or national initiatives.
- There is a need for a dedicated training, guidelines, and resource to support Athlete Leaders with health promotion at practice.



Coaches

Coaches are seen as the main decision maker of what happens at practice. In all conversations, coaches were seen as the key leader for all that happens within a sports practice. Participants felt that coaches have and can promote health in several ways.

- Coaches should encourage healthy habits through discussions with athletes. Groups provided examples of when that is currently happening at practice.
- Coaches were important role models to Special Olympics athletes and need to recognize that their behaviors—healthy or not—are noticed by athletes.
- Coaches need to be the expert in providing appropriate exercises at practice for warm-up, cool-down, and conditioning.
- Busy coaches could delegate the role of HP to an Athlete Leader.
- Coaches desired learning more through training and practical application. Coaches stated they would love a mentor or program leader to watch them in action at practice to provide tips.



I think the coach is essential, more than anything else, because in most cases, they [athletes] at least listen—at least locally—some more directly than to their parents... Modeling, modeling, modeling with our athletes, it does wonders!"

– Program Staff, Malta

Resource Needs

Participants were asked what types of resources Special Olympics International could provide in order to bring about optimal health promotion at sports practice.

- Most prevalent in conversation was that more resources were needed to use directly with athletes including visual aids, handouts, recipes cards, and sports specific exercise libraries.
- Groups recognized the need for digital resources including educational materials online and a fitness app.
- Participants discussed the need for guidelines and lesson plans so that all key stakeholders have more of an understanding of what was expected of them related to FTS.
- Some suggested having instructions on how to use current and future resources.
- Participants felt that more training for the key leaders—coaches, Athlete Leaders, and fitness professionals—was needed to provided better quality health promotion through sports.
- Program staff recognized the need for better systems for assessment, and data collection.
- Several coaches and Program staff recognized that supportive partnerships were necessary to support the health promotion work at sports practice and beyond.

CONCLUSION

The results of this project demonstrate that promoting health and fitness through sport is a valued initiative among SO athletes, coaches, caregivers and Program staff around the world.

Overall, there was generally a positive attitude from all stakeholders for Fitness through Sport observed in both survey and focus group results. Survey and focus group respondents noted that physical activity, nutrition, and hydration were generally the top three topics covered at practice, with mental health, sleep, and illness prevention and hygiene as covered less frequently. Most survey participants stated that their SO Program was currently promoting health and fitness through sport. Consistent with survey responses, participants shared that exercises were incorporated within practice through warm-ups, cool-downs, and conditioning. Coaches encouraged athletes to be healthy either informally through words of encouragement or role modeling, or formally through lessons, visual aids, or handouts. Additionally, every focus group provided examples of initiatives that happened outside of practice suggesting that participants see “sport” as much larger than what happens in the sports practice.

Key leadership for health promotion at sports was also consistent between the survey and the focus group. **Survey respondents recognize coaches most frequently lead health promotion efforts, with Athlete Leaders and health and fitness professionals following respectively.** Focus groups seemed to agree with these findings with both mentions of current programming and discussions about these roles in the future.

Only two stakeholder groups (coaches and Program staff) were asked about barriers to promoting health and fitness on the field of play. **Coaches felt that time and training were two of the biggest barriers.** Focus groups also illuminated that a lack of assessment structure and data was making it difficult to solicit partnerships and funding for this work.

Although little research previous has studied HP in a sport setting for people with intellectual disabilities, the results of the survey and focus groups seem to align with the literature on HP in a typical sport setting. Participants in this evaluation shared stories of improved health, enhanced performance, and behavior change, suggesting that, **if properly evaluated, health promotion efforts at SO could also demonstrate positive outcomes.**

This evaluation builds an understanding of the current landscape and a needs assessment of health promotion programming within the sport setting. Future work should focus on the build out of a comprehensive strategy informed by this evaluation. Key lessons from the literature, survey, resource focus groups should be integrated within the strategic plan.

RECOMMENDATIONS

The following recommendations are based off the results of the evaluation:

- Develop a comprehensive **Fitness through Sport (FTS) strategy**.
- Focus on the inclusion of exercise/physical activity, nutrition, and hydration as the **primary topics included in HP efforts**. Include sleep, mental health, and hygiene as well.
- Build out **guidelines for the length and structure** of FTS programming for SO Programs and key leaders to follow. Share how Programs can track and report on this programming.
- **Identify clear roles for coaches, Athlete Leaders, and health and fitness professionals** that are complementary in nature. Recognize that the “gatekeeper” of practice is the coach, the Athlete Leader may have more time, and the health and fitness professional provides credibility but will have less time.
- Develop **training materials** for each of three key leaders.
 - Many SO training resources could be slightly adapted to align with this strategy including the Fitness through Sport module for sport coaches and the Fitness Coach module for fitness professionals.
 - In addition, the recently piloted Fitness Captain training is a promising fit for training Athlete Leaders.
- Build a **toolkit for coaches** that includes sport specific exercise suggestions, warm-up and cool-down routines, lesson plans, visual aids, and handouts.
- **Communicate existing resources** that were designed to promote fitness through sport.
- Find ways to **engage parents and caregivers** such as creating a shorter but complementary set of resources that can be sent via email or other messaging platforms.



- Recognize the importance of **digital resources** as a way to connect health promotion on and off the field of play.
- Develop an **assessment plan that is feasible and acceptable** for athletes, coaches, and Program staff that can clearly evaluate the impact of health promotion through sport on athlete health.
- Explore how **fitness programming outside of sessions can better complement programming** that's occurring inside of practice.
 - Consider “sports conditioning” programming in a local gym.
 - Develop off season programming for gaps between seasons.
- **Ensure competition settings are sending the same healthy messages** that athletes are receiving in practice.
 - Provide healthy foods.
 - Include Performance Stations.
 - Ensure warm-ups and cool-downs are part of the competition protocol.
 - Be mindful of product placement from partners.
 - Increase partnerships and funding to support health promotion efforts to ensure a global reach.



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