Strategies for Fostering Quality Participation Among Persons with Disabilities in Community-Based Exercise Programs
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PREFACE

OVERVIEW

Strategies for Fostering Quality Participation Among Persons with Disabilities in Community-Based Exercise Programs is a tool that guides program providers through the content of a strategy matrix that can be used “on-the-ground” in community-based exercise programs to help foster quality participation among persons with disabilities. This tool can be used in the development of new exercise programs, to assess how existing programming may be altered to promote quality experiences, and to train program staff or volunteers.

This tool is based on findings from an accompanying scientific paper: Tomasone JR, Man KE, Sartor JD, Andrusko KE, Martin Ginis KA, & Latimer-Cheung AE, ‘On-the ground’ strategy matrix for fostering quality participation experiences among persons with disabilities in community-based exercise programs, Psychology of Sport and Exercise, 2023, https://doi.org/10.1016/j.psychsport.2023.102469

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AUTHORS

Jennifer R. Tomasone, Queen’s University
Kristiann E. Man, Queen’s University
Jacob D. Sartor, Queen’s University
Kate E. Andrusko, Queen’s University
Kathleen A. Martin Ginis, University of British Columbia
Amy E. Latimer-Cheung, Queen’s University

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We would also like to thank the experts who participated in the sort task. We acknowledge our partners across Canada who offered insight into how the strategy matrix could be applied “on-the-ground” in their community-based exercise programs for persons with disabilities: Stephanie Corras, Kelsey Ford, Kelly Kasper, Clayton Rolston, Paige Wozny, and Milly Zaletelji. Thank you to Stephanie Flood, Natara Ng, and Alexandra Walters for their assistance with formatting the final version of this tool.
Community-based exercise programs...

Community-based exercise programs typically provide community-dwelling individuals with an opportunity to engage in leisure-focused (i.e., rather than rehabilitation-focused) physical activity. Programs for persons with disabilities include accessible exercise equipment and knowledgeable exercise professionals, both of which contribute to developing exercise routines tailored to the needs of each participant. Community-based exercise programs are a means to enhance full and effective participation in physical activity among persons with disabilities.

Full and effective participation...

Full and effective participation is possible when a person with a disability is participating to the extent that they choose, and that they have a positive subjective experience when participating. That is, both quantity and quality of participation must be considered.

Quality Participation...

Quality participation can be conceptualized as one's subjective participatory experience and is the result of repeated and sustained quality experiences. Quality participation is achieved when individuals with a disability view their involvement in exercise as satisfying and enjoyable, and experience outcomes that they consider important.

Figure 1. A framework for building quality participation for persons with disabilities in a community-based exercise program.
Seven building blocks contribute to a positive quality experience for persons with disabilities in community-based exercise programs:

AUTONOMY
Having independence, choice, control

ENGAGEMENT
Being in-the-moment, focused, absorbed, fascinated

BELONGINGNESS
Feeling included, accepted, respected, part of the group

MASTERY
Feeling a sense of achievement, accomplishment, competence

CHALLENGE
Feeling appropriately tested

MEANING
Contributing toward obtaining a personal or socially meaningful goal; feeling a sense of responsibility to others

VALIDATION
Feeling important, valued, supported and worthy of experiencing a high level of service in an exercise program

Validation is a new building block that was added to the quality participation framework in the exercise context.

The environment within which the building blocks are fostered matters too. The three conditions necessary for fostering quality participation are:

PHYSICAL ENVIRONMENT
Physical and structural components of the immediate and surrounding setting

ACTIVITY ENVIRONMENT
Nature of the activity itself

SOCIAL ENVIRONMENT
Relationships formed within the setting, as well as societal attitudes towards the activity
Quality experience is individual and dynamic:

- Participants will place different values on the building blocks and conditions; the way one participant experiences quality may not be exactly the same as another participant.

- The value participants place on each building block and condition may change over time. For example, a sense of belonging may be important at the start of an individual’s participation, but challenge and meaning may be more important later on in their participation.

- How one participant experiences the building blocks and conditions may be different from how another participant experiences the building blocks and conditions.

Different strategies can be used to foster quality experience among persons with disability in community-based exercise programs. Some key considerations when selecting strategies to foster quality experience include:

- Utilize strategies that align with your program’s priorities and participants’ needs. It is critical to consider your specific program’s priorities and ask your participants why they are participating. Understanding your program’s and participants’ unique needs will help you identify which building blocks and conditions you should focus on and, ultimately, help you to prioritize your strategies.

- Consider that one strategy could influence numerous building blocks and conditions of quality participation, as many strategies target multiple building blocks and conditions of quality participation.

- Recognize that it may not be possible or necessary to use all the strategies; however, implementing more strategies will likely increase the potential for creating a quality experience.

HOW WE MADE THIS TOOL

This tool is the product of a multi-step research process (Tomasone et al., 2023). First, we surveyed and talked to providers from community-based exercise programs to identify strategies used to foster quality experience in their programs. Next, experts from the fields of adapted physical activity, health behaviour change, disability, and exercise programming assessed the strategies and offered their input on the quality experience building block and conditions that each strategy targets. We then organized the strategies, building blocks, and conditions into a matrix. Finally, we sought feedback from providers to understand how a tool would be most useful “on-the-ground” in community-based exercise programs. We designed the tool based on providers’ input.
WHAT IS IN THE TOOL?

This tool includes strategies for fostering quality exercise experiences in community-based exercise programs for persons with disabilities. In this tool, the strategies are presented in three different formats that may have unique utility for readers:

1. **Strategies with Expert Agreement**
   “Strategies with Expert Agreement” is a table that presents a selection of the strategies for each building block and condition of quality participation, all of which reflect agreement by the engaged experts. For each quality participation building block/condition and selected strategies, there is an example of a community-based exercise program that excels at fostering that building block/condition.

2. **High-Yield Strategies**
   “High-Yield Strategies” is a table that presents 14 strategies that target 4 or more building blocks and conditions of quality participation. Thus, these strategies are high-yield in that fostering them targets many building blocks and conditions of quality participation.

3. **Full Strategy Matrix**
   The “Full Strategy Matrix” that was synthesized in the accompanying scientific paper for this tool (Tomasone et al., 2023). This matrix maps each strategy onto the quality participation building blocks and conditions and indicates experts’ level of agreement with the mapping. The matrix also provides “on-the-ground” examples of how each strategy can be fostered in community-based exercise programs.

HOW TO USE THIS TOOL

Providers from community-based exercise programs suggest that you can use this tool in several ways:

- To develop new exercise programs that foster quality participation.
- To assess the feasibility of implementing a strategy within your program’s context before tailoring the strategy to your program.
- To identify which quality participation building blocks and conditions are primarily targeted by the strategies currently implemented in your program.
- To assess where and how existing programming may be altered to further promote quality experiences.
- To train new program staff or volunteers. Specifically, the strategies can be used to offer providers guidance about how to foster positive exercise experiences for persons with disability, and to justify why certain features of the program exist.
Strategies with Expert Agreement

The following table presents a selection of strategies for each building block and condition of quality participation, all of which reflect agreement by the experts engaged in, and programs who contributed to, our research study (Tomasone et al., 2023). For each quality participation building block, condition, and selected strategies, there is an example of a community-based exercise program that excels at fostering the given building block or condition. Note that the details about the community-based exercise programs featured in this tool were accurate prior to the COVID-19 pandemic. While the specifics of program operations may have changed due to COVID-19, the strategies are still relevant for creating quality experiences in programs as we navigate pandemic recovery.

For each building block and condition of quality participation, the table contains:

<table>
<thead>
<tr>
<th>Strategies and Examples</th>
<th>Other Strategies and Examples</th>
<th>Featured Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presented strategies reflect high level of agreement and high program use.</td>
<td>Presented strategies reflect moderate-to-high levels of agreement and moderate-to-high program use.</td>
<td>Program that fosters the given construct. For more information about the featured programs, see this tool's Appendix.</td>
</tr>
</tbody>
</table>
## Strategies and Examples

| 1. Invite participants to give their input on the development of their exercise routine  
Example: Allow participants to have input in determining the frequency, intensity, duration, and type of exercise; Participants have the option to select from a variety of structured physical activity options | 4. Transfer physical activity knowledge pertaining to exercise methods and skills, so that participants can exercise independently outside of the exercise program  
Example: Provide online links and videos for at home workouts; Provide participants with their programs so they can perform them individually |
| 2. Allow participants to determine their own exercise goals in collaboration with a qualified trainer  
Example: In a preliminary meeting, the participant identifies their personal goals and the trainer provides feedback, subsequently helping to build a program to achieve these goals | 5. Provide participants with the option to fundraise for their own membership fees  
Example: Participants collect pledges for the program's special events in order to subsidize their own participation fees |
| 3. Allow participants to set their own goals for changes they would like to see in their daily lives  
Example: When performing exercises, try to relate movements to functional activities so participants can identify goals for their daily lives | 6. Provide continued exercise opportunities to participants after they have graduated from or completed the program  
Example: Offer another exercise program that helps transition participants to mainstream gyms |
| 7. Provide opportunities for participants to engage in physical activity outside of the program session  
Example: Include a voluntary option to drop-in to the gym outside of program session time | 8. Support participants' mastery perceptions by demonstrating an understanding and acceptance of all participant abilities  
Example: Respect participants' personal preferences and decisions for how they want to exercise |

## Featured Program

**Power Cord**  
St. Catharine’s, ON

**Program Description**  
Power Cord offers wheelchair accessible exercise programming to individuals with spinal cord injury, multiple sclerosis, and lower limb amputations. The goal of Power Cord is to improve physical fitness, functional independence, and psychosocial well-being.

**Program Structure**  
Power Cord offers individual sessions in an open gym environment. Participants choose which exercises to focus on; common types of training include aerobic exercise, resistance exercise, circuit training, locomotor training, functional electrical stimulation, hand cycle exercise, stretching, balance, tilt table, and standing frame training.

**How Power Cord fosters Autonomy**  
At Power Cord, participants are involved in the goal setting process and provide input into their exercise programs based on their goals. Since participants can choose which exercise to focus on during their session, they have control over the duration and amount of exercise they participate in.
**Belongingness**  
*Feeling included, accepted, respected, part of the group*

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<th>Strategies and Examples</th>
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</thead>
</table>
| 1. Engage in communication with the program participants outside of the program hours/sessions | 4. Group together participants with similar abilities and needs (for group-based exercise program) | Walk it Off Recovery  
Newmarket, ON |
| Example: Circulate monthly newsletters about the program community, upcoming events, etc. | Example: For circuit-based exercise, divide participants into groups based on similar mobility impairments, so the exercises can be tailored and adapted to the participants' abilities | Program Description  
Walk it Off Recovery provides exercise-based recovery, education, and support to those who are living with spinal cord injury, neurological dysfunction, stroke, acquired brain injury, and/or limited mobility. The goal of Walk It Off Recovery is to improve the quality of life of participants and increase independence by maximizing recovery. |
| 2. Provide opportunities for participants to socialize | 5. Encourage participants to provide peer-based motivation for one another. | Program Structure  
At Walk it Off Recovery, one-on-one sessions are offered with a physiotherapist or kinesiologist. Sessions are 1 hour or 3 hours and often begin with Nervous System Activation Technique. Exercises typically focus on strength and conditioning through repetitive load-bearing exercise for the body, and passive range of motion exercises. |
| Example: Provide opportunities for participant socialization during exercises, between exercises, and outside of program times | Example: Volunteer provides positive reinforcement when participants motivate one another | How Walk it Off Recovery fosters Belongingness  
Working one-on-one with a staff member/volunteer provides participants with the opportunity for socialization. At Walk it Off Recovery, participants can also engage in and develop camaraderie with other members in between exercises. Walk it Off Recovery provides even further opportunity to develop camaraderie at social events outside of exercise sessions. |
| 3. Allow participants to continually re-enroll in the program, after they have graduated from or completed the program. | 6. Include activities where participants may work together (for group-based exercise program) | |
| Example: Structure the program to be on-going; do not limit enrolment to only new participants | Example: Partner ball tosses, battle ropes, etc. | |
| | 7. Orient the participant when they first join the program | |
| | Example: Introduce them to program leaders, staff members, and volunteers, as well as any other individuals they will be working with directly | |
| | 8. Create opportunities to get to know the participants beyond their identity in the program as an exerciser | |
| | Example: Ask participants about their lifestyle and interests; Host social sessions after weekly exercise sessions to get to know participants | |
| | 9. Have program characteristics that promote acceptance and inclusion from the general public | |
| | Example: Advertise the facility as an all-inclusive, safe space for persons with and without mobility impairment | |
### Strategies and Examples

1. **Create individualized exercise programs to suit the current needs of the participant**
   
   Example: Integrate add-ons or variations to exercises to increase difficulty at a participant’s discretion (for group-based exercise program)

2. **Intermittently conduct a formal reassessment and update a participant’s exercise program**
   
   Example: Create and monitor a timeline for all participants to be reassessed every 6 months

3. **Prescribe exercises that push participants to their comfortable limit**
   
   Example: Be willing to respectfully challenge the participant to improve, instead of being complacent about improvements regarding exercise

4. **Create voluntary friendly competition between participants on a voluntary basis**
   
   Example: Plan monthly 'challenges' such as throwing competitions, obstacle courses, etc.; Recognize individuals who succeed in program competitions

5. **Provide cues or reminders to ensure that participants are working hard to complete their exercises**
   
   Example: Providers count participant's repetitions out loud; visually indicates movement start and end points

### Featured Program

**Neuro Fit**

**Kitchener and Cambridge, ON**

**Program Description**

Neuro Fit is a customized exercise program for individuals who have neurological conditions such as multiple sclerosis, Parkinson’s disease, stroke, spinal cord injury, and/or limited mobility. This program is supported by the YMCA and seeks to strengthen the continuum of care from health care settings to the community.

**Program Structure**

The program supervisor (R.Kin) and instructors create exercise routines tailored to the individual and their goals. Neuro Fit focuses on strength, balance, and mobility through a circuit-based program. Participants attend 2 workout sessions per week.

**How Neuro Fit fosters Challenge:**

Neuro Fit creates individualized exercise programs tailored to meet the physical needs of each participant. While group programming occurs during warm-up and cool-down, the participant completes their workout session independently in order to suit their current needs. Program instructors monitor participants’ progress for the conduction of reassessments.
### Strategies and Examples

<table>
<thead>
<tr>
<th>Strategies and Examples</th>
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<tbody>
<tr>
<td>1. Provide participants with educational opportunities relevant to physical activity</td>
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<tr>
<td>Example: Provide informal education regarding the benefits of exercise during the exercise session; Provide the opportunity for participants to learn more about the benefits of exercise specific to their condition(s)</td>
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<tr>
<td>Only one strategy was agreed upon by experts to target Engagement.</td>
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### Other Strategies and Examples

<table>
<thead>
<tr>
<th>Harmonity In Action</th>
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<tr>
<td>Windsor, ON</td>
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<tr>
<td><strong>Program Description</strong></td>
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<tr>
<td>Harmony In Action seeks to enrich the lives of adults with developmental and/or physical disabilities by providing opportunities to succeed through positive social inclusion, individual choice, independence, and rights.</td>
</tr>
<tr>
<td><strong>Program Structure</strong></td>
</tr>
<tr>
<td>Harmony In Action offers group-based sessions with specialized exercise equipment. The program focuses on strength and mobility and utilizes specialized exercise equipment and outdoor exercise facilities specialized for adults with disabilities.</td>
</tr>
<tr>
<td><strong>How Harmony In Action fosters Engagement</strong></td>
</tr>
<tr>
<td>Harmony In Action provides educational opportunities relevant to physical activity such as teaching participants about healthy eating and the effects of exercise.</td>
</tr>
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</table>
### Strategies and Examples

<table>
<thead>
<tr>
<th>1. Provide cues or reminders to ensure that participants maintain proper technique when exercising</th>
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<tr>
<td>Example: Count sets and repetitions with the participant; Place hands at the start and end points of movements, etc.</td>
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<tr>
<th>2. Provide constructive feedback to participants</th>
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<tr>
<td>Example: Correct a participant's technique if they are performing the exercise incorrectly</td>
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<tr>
<th>3. Use verbal persuasion to increase a participant's confidence in their ability to perform the activity</th>
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<tr>
<td>Example: Provide the participant with feedback on their performance, and emphasize what they're doing correctly</td>
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<tr>
<th>4. Gradually provide less direct support for the participant, when appropriate (for individual-based exercise program)</th>
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<tr>
<td>Example: As participants gain confidence and improve at their exercises, provide hands-off support or support only when it is needed</td>
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<tr>
<th>5. Use a stepped approach to increase the complexity of a participant's exercises</th>
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<tr>
<td>Example: Start with a basic, simplistic exercise and slowly introduce components to add difficulty such as weights, therabands, added movements, etc.</td>
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<tr>
<th>6. Record or log exercises performed</th>
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<tr>
<td>Example: Have participants or staff members/volunteers write down the amount of time, weight, sets and repetitions of exercises that are completed</td>
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<tr>
<th>7. Demonstrate the proper technique for exercises</th>
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<tr>
<td>Example: Model the exercise before instructing the participants to follow; Allow participants to observe other members completing a task</td>
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<tr>
<th>8. Show participants their progressions between assessments using quantitative analysis</th>
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<tr>
<td>Example: Use machines that can display/show percentages of improvement in range of motion, weight, etc. to participants</td>
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<tr>
<th>9. Have health professionals (physiotherapist, trainer, etc.) provide advice and guidance to participants during the session</th>
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<tr>
<td>Example: A physiotherapist is on site, trains staff members/volunteers, or works directly with a participant at each session</td>
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<tr>
<th>10. Provide clear instructions with adequate detail for performing exercises</th>
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<tbody>
<tr>
<td>Example: Use straightforward language, demonstrate exercises, and identify range of motion of movements before the participant tries the exercise</td>
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</table>

### Other Strategies and Examples

### MacWheelers
Hamilton, ON

#### Program Description
MacWheelers is an exercise program for adults with spinal cord injury offered at the McMaster Physical Activity Centre of Excellence. The MacWheelers program provides an inclusive and accessible opportunity for adults living with spinal cord injury to engage in regular community exercise.

#### Program Structure
MacWheelers offers both individual and group sessions, and the program focuses on helping participants increase strength and aerobic capacity. Registered physiotherapists, kinesiologists, and exercise physiologists work together with the participant to create individualized exercise programs based on the participant's goals.

#### How MacWheelers fosters Mastery
At MacWheelers, constructive feedback and instruction on how to perform the exercise is provided to participants, and exercise changes, improvements, and physical indicators of health are documented as a means for the participant to recognize their own improvement.
### Strategies and Examples

| 1. Encourage participant self-reflection, and examination of personal goals and how exercise is making them feel |
| Example: Have participants fill out a short journal entry each session |

| 2. Encourage participants to voluntarily get involved in physical activity research studies |
| Example: If the program has received flyers or information about research studies, the staff members/volunteers will mention them to participants and post the information in the facility |

| 3. Post research findings of site-specific studies in the facility |
| Example: Communicate study results through word of mouth of staff members/volunteers; Put up posters of study results in the facility |

### Other Strategies and Examples

Only three strategies were agreed upon by experts to target Meaning.

### Featured Program

**ICAN / CERD**  
Sudbury, ON

**Program Description**  
The Independence Centre and Network (ICAN) is a program that aims to help persons with physical disabilities live independently and inclusively in the community through individualized support and rehabilitation services. ICAN serves individuals with spinal cord injury, stroke, multiple sclerosis, cerebral palsy, and/or limited mobility.

**Program Structure**  
Program sessions are one-on-one and 45 minutes. Physiotherapists and occupational therapists perform assessments on the abilities of the participants and identity exercises that are needed to improve mobility and function. Active and passive range of motion is emphasized at ICAN.

**How ICAN fosters Meaning**  
ICAN encourages self-identification and self-reflection of the physical benefits of exercise and provides formal opportunities for participants to learn about the benefits of their behaviour through a discussion-based format.
Only three strategies were agreed upon by experts to target Validation.

### Strategies and Examples

1. **Follow up with participants after they graduate out of the program**
   - Example: Follow up with participants at 3 months post program completion via a phone call or personal meeting

2. **Set up feedback opportunities on an ongoing basis for participants to offer personal suggestions and input on the program**
   - Example: Use a comment box so participants can voice their opinions; Create a participant representative role on the organizing board

3. **Provide adequate training to staff members/ volunteers to ensure a high level of service in the program**
   - Example: Ensure that staff members/ volunteers have specific training in physical activity for the population

### Other Strategies and Examples

### Validation

*Feeling important, valued, supported and worthy of experiencing a high level of service in an exercise program*

### Featured Program

**Revved Up**

*Kingston, ON*

**Program Description**

Revved Up provides an accessible place for persons with physical and developmental disabilities to exercise and enhance their quality of life.

**Program Structure**

Program sessions are 1 hour in length and are offered twice weekly on an individual basis. Exercises focus on strength, balance, and mobility with cardio training and strength training.

**How Revved Up fosters Validation**

Revved Up strives to provide a high-level of service in the program by ensuring that volunteers undergo extensive training; this includes online modules with a required quiz and in-person training. Furthermore, Revved Up follows up with graduated participants by allowing them to continually re-enroll in the program.
<table>
<thead>
<tr>
<th>Strategies and Examples</th>
<th>Other Strategies and Examples</th>
<th>Featured Program</th>
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</table>
| 1. Offer the program out of an inclusive and safe facility such as a community centre or private facility | 4. Provide access to clean drinking water for program participants
Example: Have an accessible water fountain inside the gym | TIME at the Abilities Centre
Whitby, ON |
| Example: Ensure the space has accessible doorways and elevators, or ramps; that the equipment is accessible and set up to allow for the use of mobility aids | 5. Have accessible washrooms on site
Example: The stalls have enough room for a wheelchair and service dog (in some cases both), as well as handles near the toilet. Accessible showers are also recommended | |
| 2. Monitor facility temperature to ensure participants are exercising in the optimal environment | 6. Ensure that the exercise setting is reserved during each session for program members only
Example: Book a space in a gym or exercise facility that can only be accessed with membership to the program | |
| Example: Always make sure that the facility temperature is the same, and check it around 30 minutes prior to participants arriving | 7. Acquire intuitive, easy-to-use exercise equipment
Example: Use a Nu-Step machine, which guides stepping movement and is easily accessible with a swivel seat | |
| 3. Arrange equipment within space to optimize ease of movement for participants | 8. Provide close parking in reserved spots for program participants
Example: Provide parking passes to participants who drive themselves, and ensure accessible parking is on-sit or in a nearby accessible location | |
| Example: Adopt an open gym concept; Ensure there is enough space for movement between areas with assistive devices | 9. Limit enrolment in sessions to ensure equal access to equipment
Example: Avoid accepting new participants into sessions where current participants are often waiting to use the equipment | |
| | 10. Increase financial accessibility to the program
Example: Create new and different payment schedules or offer membership subsidies | |

**Program Description**
The Together in Movement and Exercise (TIME) program is an evidence-based and task-related exercise program that seeks to enhance the quality of life and citizenship for people of all ages and abilities by providing inclusive programs and services of the highest quality and values. TIME serves populations with neurological conditions, those who are coping with the effects of aging, and those who experience weakness after an operation or extended hospital stay.

**Program Structure**
Sessions are 1 hour and are offered in a small group exercise format. TIME focuses on weight shifting, stepping, and aerobics. The program offers exercises such as balance and core training, squatting, leg lifts, side steps, step ups, walking around the track, and aerobic machines.

**How TIME fosters Physical Environment:**
TIME is offered out of the Abilities Centre, which is a state-of-the-art facility for providing a welcoming, positive, and energized environment for exercise. The Abilities Centre is specifically designed to be an optimal environment for exercise programming for persons with disabilities.
### Social Environment

*Relationships formed within the setting, as well as societal attitudes towards the activity*

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<thead>
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| 1. Have staff members/ volunteers provide one-on-one social support for the participants (for individual-based exercise program) Example: Engage in conversation with the participant; Have staff members/volunteers show interest in participants and their lives (i.e., ask about how they have been since they last came to the program) | 4. Keep the same staff members/volunteers working with the same participant during exercise sessions (for individual-based exercise program) Example: Designate a specific volunteer to introduce the participant to the exercise facility upon entry to the program, and ensure the same volunteer/staff member is consistently working with that participant | **Level Up Fitness Academy**
Toronto, ON |
| 2. Have staff members/volunteers provide encouragement and motivation Example: Verbal persuasion to continue with the exercise, and comments such as "You can do it!" | 5. Recruit staff members/volunteers with diverse personalities Example: Recruit volunteers of various ages, personality traits, and educational backgrounds | |
| 3. Have staff members/volunteers float or circulate constantly Example: Monitor participants to ensure that they are performing their exercises; Provide positive feedback to individuals who are struggling or have negative attitudes | 6. Allow past program participants to return, volunteer at the program, and act as role models to current participants Example: Graduates come back to socialize, interact, and speak with current participants; Graduates from the program volunteer to hold discussions/focus groups on relevant topics | |
| 7. Practice open and continuous communication with the participant Example: Ask questions to see how the participant is doing; Have staff members/volunteers be genuine, friendly, and warm when interacting with participants so they feel comfortable | 8. Train staff members/volunteers to be sensitive to the social, accessibility, and physical activity needs of the population participating in the program Example: Make suggestions for participant progression, rather than dictating or pushing progression on the participant; Ask a participant if they require assistance with mobility and ambulation | |

**Level Up Fitness Academy**

*Program Description*

Level Up Fitness Academy aims to build healthier bodies, minds, and lives by bringing fitness to adults and youth with special needs, including autism spectrum disorder, Down syndrome, brain injury, and pervasive developmental disorder.

**Program Structure**

Level Up Fitness Academy offers private sessions and small sessions, the latter being free of charge to the client. The program focuses on strength, weight loss, balance, and mobility. Typical exercises include strength training (with weights) and functional training (sled pulls and sandbag carry).

**How Level Up Fitness Academy fosters Social Environment**

Level Up Fitness Academy provides one-on-one social support during private sessions, and staff provide encouragement and motivation to participants throughout these sessions. Staff members/volunteers work with the same participant during exercise sessions to ensure continuity. Staff members/volunteers with diverse personalities are recruited to Level Up Fitness Academy.
9. Enforce a zero-tolerance rule for inappropriate behaviour
Example: Gently remind participants to minimize disruptions during group exercise; Privately speak to participants who behave inappropriately and communicate the consequences of continued behaviour

10. Create an open, honest and supportive environment where differences are accepted rather than frowned upon
Example: Inform volunteers from the beginning (their orientation session) that the welcoming atmosphere is one of the most important parts of the program
<table>
<thead>
<tr>
<th>Strategies and Examples</th>
<th>Other Strategies and Examples</th>
<th>Canucks Autism Network</th>
</tr>
</thead>
</table>
| **1. Provide variation in the modality of exercise instruction, according to the needs of the participant** | **4. Offer modifications for exercises**  
Example: Have extra equipment (such as different weights, therabands, bosu balls, etc.) close by for adaptations to the chosen exercise | **Program Description**  
Canucks Autism Network provides year-round sports and recreation programs for individuals and families living with autism while increasing awareness and providing training in communities across British Columbia. |
| Example: Instructors demonstrate exercises themselves, explain the exercise verbally, physically provide start and end points for movements, help participants move their bodies with the correct form, etc. | **5. Ensure that the ratio of staff members/volunteers to participants is low**  
Example: Book appointments for exercise sessions for adequate support and personnel to help during a participant's attendance; for individual-based exercise: 1:1; for group-based exercise, 1:4 | **Program Structure**  
Programming occurs after school, on evenings, and on weekends. Skating, basic swimming, physical literacy, multisport programs, biking, and fitness programs are offered. For children, the program focus is on FUNdamental experiences, and for youth and young adults, the focus is on being “Active and Fit for Life.” |
| **2. Perform prescribed exercises in an alternative format, if the machine or equipment that is needed is being used** | | **How Canucks Autism Network fosters Activity Environment:**  
The Canucks Autism Network offers a widespread number of activities that can be varied according to the needs of the participant. Furthermore, participants have the option to take intermittent breaks between exercise activities. The participant-to-staff ratio at Canucks Autism Network is low (1:1). |
| Example: Suggest using a theraband for a chest press; Rotate the order of exercises in the participant's routine to use a free machine | | |
# High-Yield Strategies

The following table presents 14 strategies that target 4 or more building blocks and conditions of quality participation. Thus, these strategies are high-yield in that using them can target multiple building blocks and conditions of quality participation. Strategies are only included if the experts had High/Moderate Agreement that they fostered a given building block or condition. The condition “Physical Environment” was not targeted by any of these high-yield strategies.

*Note. An more accessible version of this table is presented on page 28.*

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Example</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>E</th>
<th>M</th>
<th>Me</th>
<th>V</th>
<th>PE</th>
<th>SE</th>
<th>AE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support participants’ mastery perceptions by demonstrating an understanding and acceptance of all participant abilities</td>
<td>Respect participants’ personal preferences and decisions for how they want to exercise</td>
<td>X*</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Include activities where participants may work together (for group-based exercise program)</td>
<td>Partner ball tosses, battle ropes, etc.</td>
<td>X*</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Provide opportunities for participants to socialize</td>
<td>Provide opportunities for participant socialization during exercises, between exercises, and outside of program times</td>
<td>X*</td>
<td>X</td>
<td>X</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Group together participants with similar abilities and needs (for group-based exercise program)</td>
<td>For circuit-based exercise, divide participants into groups based on similar mobility impairments, so the exercises can be tailored and adapted to the participants’ abilities</td>
<td>X*</td>
<td>X</td>
<td>X</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Encourage participants to provide peer-based motivation for one another</td>
<td>Volunteer provides positive reinforcement when participants motivate one another</td>
<td>X*</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
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</tr>
<tr>
<td>Create individualized exercise programs to suit the current needs of the participant</td>
<td>Integrate add-ons or variations to exercises to increase difficulty at a participant's discretion (for group-based exercise program)</td>
<td>X*</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
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</tr>
<tr>
<td>Provide cues or reminders to ensure that participants are working hard to complete their exercises</td>
<td>Providers count participant's repetitions out loud; visually indicates movement start and end points</td>
<td>X*</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
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</tr>
</tbody>
</table>

*Primarily identified with indicated building block or condition, but also fosters other building blocks and/or conditions*
The following table presents 14 strategies that target 4 or more building blocks and conditions of quality participation. Thus, these strategies are high-yield in that using them can target multiple building blocks and conditions of quality participation. Strategies are only included if the experts had High/Moderate Agreement that they fostered a given building block or condition. The condition “Physical Environment” was not targeted by any of these high-yield strategies.

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<thead>
<tr>
<th>Strategy</th>
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<th>B</th>
<th>C</th>
<th>E</th>
<th>M</th>
<th>Me</th>
<th>V</th>
<th>PE</th>
<th>SE</th>
<th>AE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gradually provide less direct support for the participant, when appropriate (for individual-based exercise program)</td>
<td>As participants gain confidence and improve at their exercises, provide hands-off support or support only when it is needed</td>
<td>X</td>
<td>X</td>
<td>X*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Have staff members/ volunteers provide encouragement and motivation</td>
<td>Verbal persuasion to continue with the exercise, and comments such as &quot;You can do it!&quot;</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X*</td>
</tr>
<tr>
<td>Model/ demonstrate persistence in exercise through group taught sessions, pamphlets, stories, and workshops, etc.</td>
<td>Invite a graduate of the program to speak about their exercise journey and the challenges they overcame while being a part of the program</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X*</td>
</tr>
<tr>
<td>Allow past program participants to return, volunteer at the program, and act as role models to current participants</td>
<td>Graduates come back to socialize, interact, and speak with current participants; Graduates from the program volunteer to hold discussions/ focus groups on relevant topics</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X*</td>
</tr>
<tr>
<td>Practice open and continuous communication with the participant</td>
<td>Ask questions to see how the participant is doing; Have staff members/ volunteers be genuine, friendly, and warm when interacting with participants so they feel comfortable</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X*</td>
</tr>
<tr>
<td>Encourage the staff members/ volunteers to be eager and have positive attitudes while at the program</td>
<td>Instruct staff members/ volunteers to be friendly and welcome each member when they enter the gym</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X*</td>
</tr>
<tr>
<td>Provide variation in the modality of exercise instruction, according to the needs of the participant</td>
<td>Instructors demonstrate exercises themselves, explain the exercise verbally, physically provide start and end points for movements, help participants move their bodies with the correct form, etc.</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X*</td>
</tr>
</tbody>
</table>

*Primarily identified with indicated building block or condition, but also fosters other building blocks and/or conditions
### Full Strategy Matrix

Below is the full Strategy Matrix synthesized in the accompanying scientific paper for this tool (Tomasone et al., 2023). This matrix maps each strategy onto the quality participation building blocks and conditions and indicates experts' level of agreement with the mapping. The matrix also provides “on-the-ground” examples of how each strategy can be fostered in community-based exercise programs.

*Note.* An accessible version of this table is available on page 32.

<table>
<thead>
<tr>
<th>Aspect Fostered</th>
<th>Strategy</th>
<th>Example</th>
<th>Aspects of Quality Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autonomy</td>
<td>Invite participants to give their input on the development of their exercise routine</td>
<td>Allow participants to have input in determining the frequency, intensity, duration, and type of exercise; Participants have the option to select from a variety of structured physical activity options</td>
<td>A B C E M Me V PE SE AE</td>
</tr>
<tr>
<td></td>
<td>Allow participants to determine their own exercise goals in collaboration with a qualified trainer</td>
<td>In a preliminary meeting, the participant identifies their personal goals and the trainer provides feedback, subsequently helping to build a program to achieve these goals</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Provide participants with the option to fundraise for their own membership fees</td>
<td>Participants collect pledges for the program's special events in order to subsidize their own participation fees</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Transfer physical activity knowledge pertaining to exercise methods and skills, so that participants can exercise independently outside of the exercise program</td>
<td>Provide online links and videos for at home workouts; Provide participants with their programs so they can perform them individually</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>Provide continued exercise opportunities to participants after they have graduated from or completed the program</em></td>
<td>Offer another exercise program that helps transition participants to mainstream gyms</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Provide opportunities for participant to engage in physical activity outside of the program session</td>
<td>Include a voluntary option to drop-in to the gym outside of program session time</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Allow participants to set their own goals for changes they would like to see in their daily lives</td>
<td>When performing exercises, try to relate movements to functional activities so participants can identify goals for their daily lives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Support participants' mastery perceptions by demonstrating an understanding and acceptance of all participant abilities</td>
<td>Respect participants' personal preferences and decisions for how they want to exercise</td>
<td></td>
</tr>
<tr>
<td>Belongingness</td>
<td>Engage in communication with the program participants outside of the program hours/sessions</td>
<td>Circulate monthly newsletters about the program community, upcoming events, etc.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Include activities where participants may work together (for group-based exercise program)</td>
<td>Partner ball tosses, battle ropes, etc.</td>
<td></td>
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<tr>
<td></td>
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<td></td>
<td>Encourage participants to provide peer-based motivation for one another.</td>
<td>Volunteer provides positive reinforcement when participants motivate one another</td>
<td></td>
</tr>
<tr>
<td>Challenge</td>
<td>Engagement</td>
<td>Mastery</td>
<td></td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Allow participants to continually re-enroll in the program, after they</td>
<td>Structure the program to be on-going; do not limit enrolment to only new participants</td>
<td>*Use a stepped approach to increase the complexity of a participant’s</td>
<td></td>
</tr>
<tr>
<td>have graduated from or completed the program.</td>
<td></td>
<td>exercises</td>
<td></td>
</tr>
<tr>
<td>Orient the participant when they first join the program</td>
<td>Introduce them to program leaders, staff members, and volunteers, as well as any other individuals they will be working with directly</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Create opportunities to get to know the participants beyond their identity in the program as an exerciser</td>
<td>Ask participants about their lifestyle and interests; Host social sessions after weekly exercise sessions to get to know participants</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have program characteristics that promote acceptance and inclusion from the general public</td>
<td>Advertise the facility as an all-inclusive, safe space for persons with and without mobility impairment</td>
<td>Provide constructive feedback to participants. Correct a participant's technique if they are performing the exercise incorrectly</td>
<td></td>
</tr>
<tr>
<td>Create individualized exercise programs to suit the current needs of the participant</td>
<td>Integrate add-ons or variations to exercises to increase difficulty at a participant’s discretion (for group-based exercise program)</td>
<td>Start with a basic, simplistic exercise and slowly introduce components to add difficulty such as weights, therabands, added movements, etc.</td>
<td></td>
</tr>
<tr>
<td>Provide cues or reminders to ensure that participants are working hard to complete their exercises</td>
<td>Providers counts participant’s repetitions out loud; visually indicates movement start and end points</td>
<td>Provide clear instructions with adequate detail for performing exercises</td>
<td></td>
</tr>
<tr>
<td>Create voluntary friendly competition between participants on a voluntary basis.</td>
<td>Plan monthly ‘challenges’ such as throwing competitions, obstacle courses, etc.; Recognize individuals who succeed in program competitions</td>
<td>Use straight forward language, demonstrate exercises, and identify range of motion of movements before the participant tries the exercise</td>
<td></td>
</tr>
<tr>
<td>Prescribe exercises that push participants to their comfortable limit</td>
<td>Be willing to respectfully challenge the participant to improve, instead of being complacent about improvements regarding exercise</td>
<td>Demonstrate the proper technique for exercises Model the exercise before instructing the participants to follow; Allow participants to observe other members completing a task</td>
<td></td>
</tr>
<tr>
<td>Intermittently conduct a formal reassessment and update a participant’s exercise program</td>
<td>Create and monitor a timeline for all participants to be reassessed every 6 months</td>
<td>Provide cues or reminders to ensure that participants maintain proper technique when exercising. Count sets and repetitions with the participant; Place hands at the start and end points of movements, etc.</td>
<td></td>
</tr>
<tr>
<td><strong>Ensure staff members/ volunteers are knowledgeable about making appropriate exercise adaptations</strong></td>
<td>Recruit staff members/volunteers who have a health sciences, exercise, and disability, etc. background; Educate staff members/volunteers on contraindications for exercise and safety in the gym</td>
<td>Encourage participants to report back their action plans and progress to staff members/volunteers Volunteers ask participants if they have noticed changes in their strength and endurance.</td>
<td></td>
</tr>
<tr>
<td>Provide participants with educational opportunities relevant to physical activity</td>
<td>Provide informal education regarding the benefits of exercise during the exercise session; Provide the opportunity for participants to learn more about the benefits of exercise specific to their condition(s)</td>
<td>*Gradually provide less direct support for the participant, when appropriate (for individual-based exercise program) As participants gain confidence and improve at their exercises, provide hands-off support or support only when it is needed</td>
<td></td>
</tr>
<tr>
<td>*Be willing to make new times and dates available for program sessions to offer variety in scheduling and accommodate participants</td>
<td>If a program session is full, open up a new session time to take in more participants; Offer program sessions at multiple time points in the day to accommodate different participant preferences</td>
<td>Provide cues or reminders to ensure that participants maintain proper technique when exercising. Count sets and repetitions with the participant; Place hands at the start and end points of movements, etc.</td>
<td></td>
</tr>
<tr>
<td>Engage participants with educational opportunities relevant to physical activity</td>
<td></td>
<td>Provide cues or reminders to ensure that participants maintain proper technique when exercising. Count sets and repetitions with the participant; Place hands at the start and end points of movements, etc.</td>
<td></td>
</tr>
<tr>
<td>Mastery</td>
<td></td>
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</tr>
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<tr>
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<td>Mastery</td>
<td></td>
</tr>
<tr>
<td><strong>Meaning</strong></td>
<td><strong>Validation</strong></td>
<td><strong>Physical Environment</strong></td>
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<tr>
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<td></td>
</tr>
<tr>
<td>Use verbal persuasion to increase a participant's confidence in their ability to perform the activity</td>
<td>Provide the participant with feedback on their performance, and emphasize what they're doing correctly</td>
<td>Ensure that the exercise setting is reserved during each session for program members only</td>
<td></td>
</tr>
<tr>
<td>Record or log exercises performed</td>
<td>Have participants or staff members/volunteers write down the amount of time, weight, sets and repetitions of exercises that are completed</td>
<td>Book a space in a gym or exercise facility that can only be accessed with membership to the program</td>
<td></td>
</tr>
<tr>
<td>Show participants their progressions between assessments using quantitative analysis</td>
<td>Use machines that can display/show percentages of improvement in range of motion, weight, etc. to participants</td>
<td>Incorporate the latest evidence-based training techniques and exercise machines.</td>
<td></td>
</tr>
<tr>
<td>Have health professionals (physiotherapist, trainer, etc.) provide advice and guidance to participants during the session</td>
<td>A physiotherapist is on site, trains staff members/volunteers, or works directly with a participant at each session</td>
<td>Ensure the space has accessible doorways and elevators, or ramps; that the equipment is accessible and set up to allow for the use of mobility aids.</td>
<td></td>
</tr>
<tr>
<td><strong>Encourage participants to voluntarily get involved in physical activity research studies.</strong></td>
<td>If the program has received flyers or information about research studies, the staff members/volunteers will mention them to participants and post the information in the facility</td>
<td>Acquire intuitive, easy-to-use exercise equipment</td>
<td></td>
</tr>
<tr>
<td><strong>Post research findings of site-specific studies in the facility</strong></td>
<td>Communicate study results through word of mouth of staff members/volunteers; Put up posters of study results in the facility</td>
<td>Use a Nu-Step machine, which guides stepping movement and is easily accessible with a swivel seat</td>
<td></td>
</tr>
<tr>
<td>Encourage participant self-reflection, and examination of personal goals and how exercise is making them feel</td>
<td>Have participants fill out a short journal entry each session</td>
<td>Monitor facility temperature to ensure participants are exercising in the optimal environment</td>
<td></td>
</tr>
<tr>
<td>Follow up with participants after they graduate out of the program</td>
<td>Follow up with participants at 3 months post program completion via a phone call or personal meeting</td>
<td>Always make sure that the facility temperature is the same, and check it around 30 minutes prior to participants arriving</td>
<td></td>
</tr>
<tr>
<td>Set up feedback opportunities on an ongoing basis for participants to offer personal suggestions and input on the program</td>
<td>Use a comment box so participants can voice their opinions; Create a participant representative role on the organizing board</td>
<td>Have accessible washrooms on site</td>
<td></td>
</tr>
<tr>
<td><strong>Provide adequate training to staff members/volunteers to ensure a high level of service in the program</strong></td>
<td>Ensure that staff members/volunteers have specific training in physical activity for the population</td>
<td>The stalls have enough room for a wheelchair and service dog (in some cases both), as well as handles near the toilet. Accessible showers are also recommended</td>
<td></td>
</tr>
<tr>
<td>Ensure that the program has received flyers or information about research studies, the staff members/volunteers will mention them to participants and post the information in the facility</td>
<td></td>
<td>Have accessible site washrooms on site</td>
<td></td>
</tr>
<tr>
<td>Communicate study results through word of mouth of staff members/volunteers; Put up posters of study results in the facility</td>
<td></td>
<td>The stalls have enough room for a wheelchair and service dog (in some cases both), as well as handles near the toilet. Accessible showers are also recommended</td>
<td></td>
</tr>
<tr>
<td>Have participants fill out a short journal entry each session</td>
<td></td>
<td>Provide access to clean drinking water for program participants</td>
<td></td>
</tr>
<tr>
<td>Have participants or staff members/volunteers write down the amount of time, weight, sets and repetitions of exercises that are completed</td>
<td></td>
<td>Have an accessible water fountain inside the gym</td>
<td></td>
</tr>
<tr>
<td>Use machines that can display/show percentages of improvement in range of motion, weight, etc. to participants</td>
<td></td>
<td>Arrange equipment within space to optimize ease of movement for participants</td>
<td></td>
</tr>
<tr>
<td>A physiotherapist is on site, trains staff members/volunteers, or works directly with a participant at each session</td>
<td></td>
<td>Adopt an open gym concept; Ensure there is enough space for movement between areas with assistive devices</td>
<td></td>
</tr>
<tr>
<td>Have participants or staff members/volunteers write down the amount of time, weight, sets and repetitions of exercises that are completed</td>
<td></td>
<td>Provide close parking in reserved spots for program participants</td>
<td></td>
</tr>
<tr>
<td>Provide the participant with feedback on their performance, and emphasize what they're doing correctly</td>
<td></td>
<td>Provide parking passes to participants who drive themselves, and ensure accessible parking is on-site or in a nearby accessible location</td>
<td></td>
</tr>
<tr>
<td>Ensure that staff members/volunteers have specific training in physical activity for the population</td>
<td></td>
<td>Limit enrolment in sessions to ensure equal access to equipment</td>
<td></td>
</tr>
<tr>
<td>Ensure that staff members/volunteers have specific training in physical activity for the population</td>
<td></td>
<td>Avoid accepting new participants into sessions where current participants are often waiting to use the equipment</td>
<td></td>
</tr>
<tr>
<td>Ensure the space has accessible doorways and elevators, or ramps; that the equipment is accessible and set up to allow for the use of mobility aids.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Environment</td>
<td>Increase financial accessibility to the program</td>
<td>Create new and different payment schedules or offer membership subsidies</td>
<td></td>
</tr>
<tr>
<td>------------------</td>
<td>---------------------------------------------</td>
<td>---------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Recruit staff members/ volunteers with diverse personalities.</td>
<td>Recruit volunteers of various ages, personality traits, and educational backgrounds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facilitate interaction between participants, individuals who are involved in different programs, and other staff at the facility</td>
<td>Begin the exercise session with a group meeting; Include activities where participants may work together (for group-based exercise program)</td>
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<tr>
<td>Have staff members/ volunteers provide one-on-one social support for the participants (for individual-based exercise program)</td>
<td>Engage in conversation with the participant; Have staff members/ volunteers show interest in participants and their lives (i.e. ask about how they have been since they last came to the program)</td>
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<tr>
<td>Keep the same staff members/ volunteers working with the same participant during exercise sessions (for individual-based exercise program)</td>
<td>Designate a specific volunteer to introduce the participant to the exercise facility upon entry to the program, and ensure the same volunteer/staff member is consistently working with that participant</td>
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<tr>
<td>Welcome a family member or caregiver to be present (but not participate) at the program</td>
<td>Family members can join other community exercise programs at the facility</td>
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<tr>
<td>Have staff members/ volunteers float or circulate constantly</td>
<td>Monitor participants to ensure that they are performing their exercises; Provide positive feedback to individuals who are struggling or have negative attitudes</td>
<td></td>
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<tr>
<td>Have staff members/ volunteers provide encouragement and motivation</td>
<td>Verbal persuasion to continue with the exercise, and comments such as “You can do it!”</td>
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<tr>
<td>Practice problem solving together with the participant.</td>
<td>Provider works with the participant to adapt exercises based on participants’ concerns about an exercise.</td>
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<tr>
<td>Model/ demonstrate persistence in exercise through group taught sessions, pamphlets, stories, and workshops, etc.</td>
<td>Invite a graduate of the program to speak about their exercise journey and the challenges they overcame while being a part of the program</td>
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<tr>
<td>Utilize social media to facilitate the sharing of program participants’ successes</td>
<td>Tag participants in posts where they achieve their goals; Send videos and photos to participants so they can share them with their own followers</td>
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<tr>
<td>Allow past program participants to return, volunteer at the program, and act as role models to current participants</td>
<td>Graduates come back to socialize, interact, and speak with current participants; Graduates from the program volunteer to hold discussions/ focus groups on relevant topics</td>
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</tr>
<tr>
<td>Practice active listening to help the participants to feel supported and heard</td>
<td>Instruct staff members/ volunteers to validate the concerns of the participant; Instruct staff members/ volunteers to listen instead of providing advice to the participant</td>
<td></td>
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<tr>
<td>Practice individualized consideration, where staff members/ volunteers address unique participant needs with compassion and empathy</td>
<td>Treat all participants as individuals; Ask participants about the way that they would most like to be supported</td>
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<tr>
<td>Provide access to experts and services who can give the necessary emotional, tangible, and informational support for participants</td>
<td>Refer participants to online regional platforms to find personal resources; have contact information of relevant experts and services</td>
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<tr>
<td>Practice open and continuous communication with the participant</td>
<td>Ask questions to see how the participant is doing; Have staff members/ volunteers be genuine, friendly, and warm when interacting with participants so they feel comfortable</td>
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<tr>
<td>Have program leaders engage in community outreach to spread awareness of opportunities for persons with disability</td>
<td>Program leaders continually seek out partnerships with relevant stakeholders; Program leaders take part in community events and fundraisers</td>
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<tr>
<td>Encourage the staff members/ volunteers to be eager and have positive attitudes while at the program</td>
<td>Instruct staff members/ volunteers to be friendly and welcome each member when they enter the gym</td>
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<tr>
<td><strong>Activity Environment</strong></td>
<td><strong>Train staff members/ volunteers to be sensitive to the social, accessibility, and physical activity needs of the population participating in the program</strong></td>
<td>Make suggestions for participant progression, rather than dictating or pushing progression on the participant. Ask a participant if they require assistance with mobility and ambulation</td>
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<tr>
<td>Enforce a zero tolerance rule for inappropriate behaviour</td>
<td>Gently remind participants to minimize disruptions during group exercise; Privately speak to participants who behave inappropriately and communicate the consequences of continued behaviour</td>
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<tr>
<td>Ensure staff members/ volunteers are knowledgeable about the specific impairments or symptoms of the participants (in a confidential way)</td>
<td>Only provide non-identifying, relevant information about a participant’s contraindications to exercise so that the staff member/volunteer can properly support the participant</td>
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<tr>
<td>Create an open, honest and supportive environment where differences are accepted rather than frowned upon</td>
<td>Inform volunteers from the beginning (their orientation session) that the welcoming atmosphere is one of the most important parts of the program</td>
<td></td>
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<tr>
<td>Have staff members/ volunteers encourage participants to build and utilize their own support networks</td>
<td>Encourage participants to create/initiate or join common-interest groups together that are outside of the exercise program</td>
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<tr>
<td>Practice caring attitudes and be non-judgmental and empathetic during interactions with participants</td>
<td>Focus on participants’ interests and their participation in the exercise program, rather than their impairment</td>
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<tr>
<td>Expand the inclusion criteria for the population eligible to sign up for the program</td>
<td>A program that normally works with individuals with cerebral palsy could expand it’s network to work with stroke victims</td>
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<tr>
<td>Ensure that the program leaders are present at the program</td>
<td>Have the program leaders and directors drop in to the program sessions from time to time to meet and interact with participants</td>
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<tr>
<td>Have an experienced staff member/volunteer present to provide support to junior staff members/volunteers</td>
<td>Internship students or older volunteers self-identify at the beginning of the session, and can answer the questions of new volunteers</td>
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<tr>
<td>Offer modifications for exercises</td>
<td>Have extra equipment (such as different weights, therabands, bosu balls, etc.) close by for adaptations to the chosen exercise</td>
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<tr>
<td>Provide variation in the modality of exercise instruction, according to the needs of the participant</td>
<td>Instructors demonstrate exercises themselves, explain the exercise verbally, physically provide start and end points for movements, help participants move their bodies with the correct form, etc.</td>
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<tr>
<td>Ensure that the ratio of staff members/volunteers to participants is low</td>
<td>Book appointments for exercise sessions for adequate support and personnel to help during a participant’s attendance; For Individual-based exercise: 1:1; For group-based exercise, 1:4</td>
<td></td>
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<tr>
<td>Perform prescribed exercises in an alternative format, if the machine or equipment that is needed is being used</td>
<td>Suggest using a theraband for a chest press; Rotate the order of exercises in the participant’s routine to use a free machine</td>
<td></td>
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<tr>
<td>Separate a participant’s exercises by providing the option for intermittent breaks</td>
<td>Indicate in a participant’s exercise routine when breaks should be taken</td>
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</tbody>
</table>
**Strategy was agreed upon to best foster two or more building blocks/conditions of quality participation. **Strategy only exhibited low agreement.
High-Yield Strategies— Accessible Version

The following table presents 14 strategies that target 4 or more constructs of quality participation. Thus, these strategies are high-yield in that using them can target multiple constructs of quality participation. Strategies are only included if the experts had High/Moderate Agreement that they fostered a given construct. The construct “Physical Environment” was not targeted by any of these high-yield strategies.

*Primarily identified with indicated building block or condition, but also fosters other building blocks and/or conditions

**Strategy:** Support participants' mastery perceptions by demonstrating an understanding and acceptance of all participant abilities

**Example(s):** Respect participants' personal preferences and decisions for how they want to exercise

**Aspects of Quality Participation**
- Autonomy*
- Meaning
- Validation
- Social Environment

**Strategy:** Include activities where participants may work together (for group-based exercise program)

**Example(s):** Partner ball tosses, battle ropes, etc.

**Aspects of Quality Participation**
- Belongingness*
- Engagement
- Social Environment
- Activity Environment

**Strategy:** Provide opportunities for participants to socialize

**Example(s):** Provide opportunities for participant socialization during exercises, between exercises, and outside of program times

**Aspects of Quality Participation**
- Belongingness*
- Engagement
- Meaning
- Social Environment

**Strategy:** Group together participants with similar abilities and needs (for group-based exercise program)

**Example(s):** For circuit-based exercise, divide participants into groups based on similar mobility impairments, so the exercises can be tailored and adapted to the participants' abilities

**Aspects of Quality Participation**
- Belongingness*
- Challenge
Social Environment
Activity Environment

**Strategy:** Encourage participants to provide peer-based motivation for one another

**Example(s):** Volunteer provides positive reinforcement when participants motivate one another

**Aspects of Quality Participation**
- Belongingness*
- Engagement
- Meaning
- Validation

**Strategy:** Create individualized exercise programs to suit the current needs of the participant

**Example(s):** Integrate add-ons or variations to exercises to increase difficulty at a participant’s discretion (for group-based exercise program)

**Aspects of Quality Participation**
- Challenge*
- Mastery
- Validation
- Activity Environment

**Strategy:** Provide cues or reminders to ensure that participants are working hard to complete their exercises

**Example(s):** Providers counts participant’s repetitions out loud; visually indicates movement start and end points

**Aspects of Quality Participation**
- Autonomy
- Belongingness
- Challenge
- Engagement
- Mastery
- Meaning
- Validation
- Physical Environment
- Social Environment
- Activity Environment

**Strategy:** Gradually provide less direct support for the participant, when appropriate (for individual-based exercise program)

**Example(s):** As participants gain confidence and improve at their exercises, provide hands-off support or support only when it is needed

**Aspects of Quality Participation**
- Challenge*
- Engagement
- Mastery
- Social Environment
**Strategy:** Have staff members/volunteers provide encouragement and motivation

**Example(s):** Verbal persuasion to continue with the exercise, and comments such as "You can do it!"

**Aspects of Quality Participation**
- Autonomy
- Challenge
- Mastery*
- Activity Environment

**Strategy:** Model/demonstrate persistence in exercise through group taught sessions, pamphlets, stories, and workshops, etc.

**Example(s):** Invite a graduate of the program to speak about their exercise journey and the challenges they overcame while being a part of the program

**Aspects of Quality Participation**
- Belongingness
- Engagement
- Validation
- Social Environment*

**Strategy:** Allow past program participants to return, volunteer at the program, and act as role models to current participants

**Example(s):** Graduates come back to socialize, interact, and speak with current participants; Graduates from the program volunteer to hold discussions/focus groups on relevant topics

**Aspects of Quality Participation**
- Belongingness
- Meaning
- Validation
- Social Environment*

**Strategy:** Practice open and continuous communication with the participant

**Example(s):** Ask questions to see how the participant is doing; Have staff members/volunteers be genuine, friendly, and warm when interacting with participants so they feel comfortable

**Aspects of Quality Participation**
- Belongingness
- Engagement
- Validation
- Social Environment*

**Strategy:** Encourage the staff members/volunteers to be eager and have positive attitudes while at the program

**Example(s):** Instruct staff members/volunteers to be friendly and welcome each member when they enter the gym

**Aspects of Quality Participation**
- Belongingness
- Engagement
Validation
Social Environment*

**Strategy:** Provide variation in the modality of exercise instruction, according to the needs of the participant

**Example(s):** Instructors demonstrate exercises themselves, explain the exercise verbally, physically provide start and end points for movements, help participants move their bodies with the correct form, etc.

**Aspects of Quality Participation**
- Challenge
- Engagement
- Mastery
- Activity Environment*
Full Strategy Matrix – Accessible Version

Below is the full Strategy Matrix synthesized in the accompanying scientific paper for this tool: Tomasone JR, Man KE, Sartor JD, Andrusko KE, Martin Ginis KA, & Latimer-Cheung AE. (2023). This matrix maps each strategy onto the quality participation constructs and indicates experts’ level of agreement with the mapping. The matrix also provides “on-the-ground” examples of how each strategy can be fostered in community-based exercise programs.

*Strategy was agreed upon to best foster two or more aspects of quality participation.

**Strategy only exhibited low agreement.

Aspect Fostered: Autonomy

Strategy Fostered:
Invite participants to give their input on the development of their exercise routine
Example(s): Allow participants to have input in determining the frequency, intensity, duration, and type of exercise; Participants have the option to select from a variety of structured physical activity options

Aspects of Quality Participation
- Autonomy: high agreement
- Belongingness: no agreement
- Challenge: no agreement
- Engagement: low agreement
- Mastery: no agreement
- Meaning: low agreement
- Validation: low agreement
- Physical Environment: no agreement
- Social Environment: low agreement
- Activity Environment: low agreement

Strategy Fostered:
Allow participants to determine their own exercise goals in collaboration with a qualified trainer
Example(s): In a preliminary meeting, the participant identifies their personal goals and the trainer provides feedback, subsequently helping to build a program to achieve these goals

Aspects of Quality Participation
- Autonomy: high agreement
- Belongingness: no agreement
- Challenge: moderate agreement
- Engagement: low agreement
- Mastery: moderate agreement
- Meaning: low agreement
- Validation: low agreement
- Physical Environment: no agreement
- Social Environment: low agreement
Activity Environment: low agreement

Strategy Fostered:
Provide participants with the option to fundraise for their own membership fees
Example(s): Participants collect pledges for the program’s special events in order to subsidize their own participation fees

Aspects of Quality Participation
- Autonomy: moderate agreement
- Belongingness: no agreement
- Challenge: no agreement
- Engagement: no agreement
- Mastery: no agreement
- Meaning: low agreement
- Validation: low agreement

Physical Environment: no agreement
Social Environment: no agreement
Activity Environment: no agreement

Strategy Fostered:
Transfer physical activity knowledge pertaining to exercise methods and skills, so that participants can exercise independently outside of the exercise program
Example(s): Provide online links and videos for at home workouts; Provide participants with their programs so they can perform them individually

Aspects of Quality Participation
- Autonomy: high agreement
- Belongingness: no agreement
- Challenge: low agreement
- Engagement: low agreement
- Mastery: moderate agreement
- Meaning: no agreement
- Validation: no agreement

Physical Environment: low agreement
Social Environment: no agreement
Activity Environment: moderate agreement

Strategy Fostered:
*Provide continued exercise opportunities to participants after they have graduated from or completed the program
Example(s): Offer another exercise program that helps transition participants to mainstream gyms

Aspects of Quality Participation
- Autonomy: moderate agreement
- Belongingness: no agreement
- Challenge: low agreement
- Engagement: moderate agreement
- Mastery: moderate agreement
Meaning: no agreement
Validation: low agreement
Physical Environment: no agreement
Social Environment: no agreement
Activity Environment: low agreement

**Strategy Fostered:**
Provide opportunities for participant to engage in physical activity outside of the program session
Example(s): include a voluntary option to drop-in to the gym outside of program session time

**Aspects of Quality Participation**
- Autonomy: moderate agreement
- Belongingness: low agreement
- Challenge: no agreement
- Engagement: low agreement
- Mastery: low agreement
- Meaning: no agreement
- Validation: no agreement
- Physical Environment: no agreement
- Social Environment: low agreement
- Activity Environment: low agreement

**Strategy Fostered:**
Allow participants to set their own goals for changes they would like to see in their daily lives
Example(s): When performing exercises, try to relate movements to functional activities so participants can identify goals for their daily lives

**Aspects of Quality Participation**
- Autonomy: high agreement
- Belongingness: no agreement
- Challenge: moderate agreement
- Engagement: low agreement
- Mastery: low agreement
- Meaning: moderate agreement
- Validation: low agreement
- Physical Environment: no agreement
- Social Environment: no agreement
- Activity Environment: low agreement

**Strategy Fostered:**
Support participants' mastery perceptions by demonstrating an understanding and acceptance of all participant abilities
Example(s): Respect participants' personal preferences and decisions for how they want to exercise

**Aspects of Quality Participation**
- Autonomy: moderate agreement
- Belongingness: no agreement
Challenge: low agreement
Engagement: low agreement
Mastery: moderate agreement
Meaning: low agreement
Validation: moderate agreement
Physical Environment: no agreement
Social Environment: moderate agreement
Activity Environment: no agreement
Aspect Fostered: Belongingness

Strategy Fostered:
Engage in communication with the program participants outside of the program hours/sessions
Example(s): Circulate monthly newsletters about the program community, upcoming events, etc.

Aspects of Quality Participation
   Autonomy: no agreement
   Belongingness: high agreement
   Challenge: no agreement
   Engagement: low agreement
   Mastery: no agreement
   Meaning: no agreement
   Validation: low agreement
   Physical Environment: no agreement
   Social Environment: high agreement
   Activity Environment: low agreement

Strategy Fostered:
Include activities where participants may work together (for group-based exercise program)
Example(s): Partner ball tosses, battle ropes, etc.

Aspects of Quality Participation
   Autonomy: no agreement
   Belongingness: high agreement
   Challenge: low agreement
   Engagement: moderate agreement
   Mastery: no agreement
   Meaning: low agreement
   Validation: no agreement
   Physical Environment: no agreement
   Social Environment: moderate agreement
   Activity Environment: high agreement

Strategy Fostered:
Provide opportunities for participants to socialize
Example(s): Provide opportunities for participant socialization during exercises, between exercises, and outside of program times

Aspects of Quality Participation
   Autonomy: no agreement
   Belongingness: high agreement
   Challenge: no agreement
   Engagement: moderate agreement
   Mastery: no agreement
   Meaning: moderate agreement
   Validation: low agreement
Physical Environment: no agreement
Social Environment: high agreement
Activity Environment: low agreement

Strategy Fostered:
Group together participants with similar abilities and needs (for group-based exercise program)
Example(s): For circuit-based exercise, divide participants into groups based on similar mobility impairments, so the exercises can be tailored and adapted to the participants' abilities

Aspects of Quality Participation
  Autonomy: no agreement
  Belongingness: high agreement
  Challenge: moderate agreement
  Engagement: low agreement
  Mastery: low agreement
  Meaning: no agreement
  Validation: no agreement
  Physical Environment: no agreement
  Social Environment: moderate agreement
  Activity Environment: moderate agreement

Strategy Fostered:
Encourage participants to provide peer-based motivation for one another.
Example(s): For circuit-based exercise, divide participants into groups based on similar mobility impairments, so the exercises can be tailored and adapted to the participants' abilities

Aspects of Quality Participation
  Autonomy: no agreement
  Belongingness: high agreement
  Challenge: no agreement
  Engagement: moderate agreement
  Mastery: no agreement
  Meaning: moderate agreement
  Validation: moderate agreement
  Physical Environment: no agreement
  Social Environment: high agreement
  Activity Environment: no agreement

Strategy Fostered:
Allow participants to continually re-enroll in the program, after they have graduated from or completed the program.
Example(s): Structure the program to be on-going; do not limit enrolment to only new participants

Aspects of Quality Participation
  Autonomy: low agreement
  Belongingness: high agreement
  Challenge: no agreement
  Engagement: moderate agreement
Mastery: no agreement
Meaning: low agreement
Validation: low agreement
Physical Environment: no agreement
Social Environment: low agreement
Activity Environment: low agreement

Strategy Fostered:
Orient the participant when they first join the program
Example(s): Introduce them to program leaders, staff members, and volunteers, as well as any other individuals they will be working with directly

Aspects of Quality Participation
  Autonomy: no agreement
  Belongingness: high agreement
  Challenge: no agreement
  Engagement: low agreement
  Mastery: no agreement
  Meaning: no agreement
  Validation: low agreement
  Physical Environment: no agreement
  Social Environment: high agreement
  Activity Environment: no agreement

Strategy Fostered:
Create opportunities to get to know the participants beyond their identity in the program as an exerciser
Example(s): Ask participants about their lifestyle and interests; Host social sessions after weekly exercise sessions to get to know participants

Aspects of Quality Participation
  Autonomy: no agreement
  Belongingness: high agreement
  Challenge: no agreement
  Engagement: low agreement
  Mastery: no agreement
  Meaning: low agreement
  Validation: moderate agreement
  Physical Environment: no agreement
  Social Environment: high agreement
  Activity Environment: no agreement

Strategy Fostered:
Have program characteristics that promote acceptance and inclusion from the general public
Example(s): Advertise the facility as an all-inclusive, safe space for persons with and without mobility impairment

Aspects of Quality Participation
  Autonomy: no agreement
Belongingness: moderate agreement
Challenge: no agreement
Engagement: no agreement
Mastery: no agreement
Meaning: low agreement
Validation: moderate agreement
Physical Environment: low agreement
Social Environment: moderate agreement
Activity Environment: no agreement
Aspect Fostered: Challenge

Strategy Fostered:
Create individualized exercise programs to suit the current needs of the participant.
Example(s): Integrate add-ons or variations to exercises to increase difficulty at a participant’s discretion (for group-based exercise program).

Aspects of Quality Participation
- Autonomy: low agreement
- Belongingness: no agreement
- Challenge: high agreement
- Engagement: low agreement
- Mastery: moderate agreement
- Meaning: no agreement
- Validation: moderate agreement
- Physical Environment: no agreement
- Social Environment: no agreement
- Activity Environment: moderate agreement

Strategy Fostered:
Provide cues or reminders to ensure that participants are working hard to complete their exercises.
Example(s): Providers counts participant’s repetitions out loud; visually indicates movement start and end points.

Aspects of Quality Participation
- Autonomy: no agreement
- Belongingness: no agreement
- Challenge: moderate agreement
- Engagement: moderate agreement
- Mastery: low agreement
- Meaning: no agreement
- Validation: no agreement
- Physical Environment: no agreement
- Social Environment: moderate agreement
- Activity Environment: low agreement

Strategy Fostered:
Create voluntary friendly competition between participants on a voluntary basis.
Example(s): Plan monthly 'challenges' such as throwing competitions, obstacle courses, etc.; Recognize individuals who succeed in program competitions.

Aspects of Quality Participation
- Autonomy: no agreement
- Belongingness: low agreement
- Challenge: high agreement
- Engagement: low agreement
- Mastery: moderate agreement
- Meaning: moderate agreement
- Validation: no agreement
Validation: no agreement
Physical Environment: no agreement
Social Environment: low agreement
Activity Environment: low agreement

**Strategy Fostered:**
Prescribe exercises that push participants to their comfortable limit
Example(s): Be willing to respectfully challenge the participant to improve, instead of being complacent about improvements regarding exercise

**Aspects of Quality Participation**
- Autonomy: no agreement
- Belongingness: no agreement
- Challenge: high agreement
- Engagement: low agreement
- Mastery: moderate agreement
- Meaning: no agreement
- Validation: no agreement
- Physical Environment: no agreement
- Social Environment: low agreement
- Activity Environment: moderate agreement

**Strategy Fostered:**
Intermittently conduct a formal reassessment and update a participant's exercise program
Example(s): Create and monitor a timeline for all participants to be re-assessed every 6 months

**Aspects of Quality Participation**
- Autonomy: no agreement
- Belongingness: no agreement
- Challenge: high agreement
- Engagement: low agreement
- Mastery: high agreement
- Meaning: no agreement
- Validation: low agreement
- Physical Environment: no agreement
- Social Environment: high agreement
- Activity Environment: moderate agreement

**Strategy Fostered:**
**Ensure staff members/ volunteers are knowledgeable about making appropriate exercise adaptations Example(s): Recruit staff members/ volunteers who have a health sciences, exercise, and disability, etc. background; Educate staff members/ volunteers on contraindications for exercise and safety in the gym

**Aspects of Quality Participation**
- Autonomy: no agreement
- Belongingness: no agreement
- Challenge: low agreement
- Engagement: no agreement
Mastery: low agreement
Meaning: no agreement
Validation: no agreement
Physical Environment: no agreement
Social Environment: low agreement
Activity Environment: low agreement
Aspect Fostered: Engagement

Strategy Fostered:
Provide participants with educational opportunities relevant to physical activity
Example(s): Provide informal education regarding the benefits of exercise during the exercise session; Provide the opportunity for participants to learn more about the benefits of exercise specific to their condition(s)

Aspects of Quality Participation
- Autonomy: low agreement
- Belongingness: no agreement
- Challenge: low agreement
- Engagement: moderate agreement
- Mastery: low agreement
- Meaning: low agreement
- Validation: low agreement
- Physical Environment: no agreement
- Social Environment: low agreement
- Activity Environment: no agreement

Strategy Fostered:
*Be willing to make new times and dates available for program sessions to offer variety in scheduling and accommodate participants
Example(s): If a program session is full, open up a new session time to take in more participants; Offer program sessions at multiple time points in the day to accommodate different participant preferences

Aspects of Quality Participation
- Autonomy: low agreement
- Belongingness: no agreement
- Challenge: no agreement
- Engagement: low agreement
- Mastery: no agreement
- Meaning: no agreement
- Validation: low agreement
- Physical Environment: low agreement
- Social Environment: no agreement
- Activity Environment: low agreement
Aspect Fostered: Mastery

Strategy Fostered:
Gradually provide less direct support for the participant, when appropriate (for individual-based exercise program)
Example(s): As participants gain confidence and improve at their exercises, provide hands-off support or support only when it is needed

Aspects of Quality Participation
- Autonomy: high agreement
- Belongingness: no agreement
- Challenge: moderate agreement
- Engagement: low agreement
- Mastery: high agreement
- Meaning: no agreement
- Validation: no agreement
- Physical Environment: no agreement
- Social Environment: low agreement
- Activity Environment: moderate agreement

Strategy Fostered:
Provide cues or reminders to ensure that participants maintain proper technique when exercising.
Example(s): Count sets and repetitions with the participant; Place hands at the start and end points of movements, etc.

Aspects of Quality Participation
- Autonomy: no agreement
- Belongingness: no agreement
- Challenge: moderate agreement
- Engagement: low agreement
- Mastery: high agreement
- Meaning: no agreement
- Validation: no agreement
- Physical Environment: no agreement
- Social Environment: no agreement
- Activity Environment: moderate agreement

Strategy Fostered:
Encourage participants to report back their action plans and progress to staff members/volunteers
Example(s): Volunteers ask participants if they have noticed changes in their strength and endurance.

Aspects of Quality Participation
- Autonomy: low agreement
- Belongingness: no agreement
- Challenge: low agreement
Engagement: moderate agreement
Mastery: low agreement
Meaning: no agreement
Validation: low agreement
Physical Environment: no agreement
Social Environment: moderate agreement
Activity Environment: no agreement

Strategy Fostered:
*Use a stepped approach to increase the complexity of a participant's exercises
Example(s): Start with a basic, simplistic exercise and slowly introduce components to add difficulty such as weights, therabands, added movements, etc.

Aspects of Quality Participation
  Autonomy: no agreement
  Belongingness: no agreement
  Challenge: high agreement
  Engagement: low agreement
  Mastery: high agreement
  Meaning: no agreement
  Validation: no agreement
  Physical Environment: no agreement
  Social Environment: no agreement
  Activity Environment: moderate agreement

Strategy Fostered:
Provide clear instructions with adequate detail for performing exercises
Example(s): Use straightforward language, demonstrate exercises, and identify range of motion of movements before the participant tries the exercise

Aspects of Quality Participation
  Autonomy: no agreement
  Belongingness: no agreement
  Challenge: low agreement
  Engagement: no agreement
  Mastery: moderate agreement
  Meaning: no agreement
  Validation: no agreement
  Physical Environment: no agreement
  Social Environment: no agreement
  Activity Environment: moderate agreement

Strategy Fostered:
Demonstrate the proper technique for exercises
Example(s): Model the exercise before instructing the participants to follow; Allow participants to observe other members completing a task

Aspects of Quality Participation
  Autonomy: no agreement
Belongingness: no agreement
Challenge: low agreement
Engagement: low agreement
Mastery: high agreement
Meaning: no agreement
Validation: no agreement
Physical Environment: no agreement
Social Environment: no agreement
Activity Environment: high agreement

Strategy Fostered:
Provide constructive feedback to participants.
Example(s): Correct a participant's technique if they are performing the exercise incorrectly

Aspects of Quality Participation
  Autonomy: no agreement
  Belongingness: no agreement
  Challenge: low agreement
  Engagement: no agreement
  Mastery: high agreement
  Meaning: no agreement
  Validation: low agreement
  Physical Environment: no agreement
  Social Environment: low agreement
  Activity Environment: low agreement

Strategy Fostered:
Use verbal persuasion to increase a participant's confidence in their ability to perform the activity
Example(s): Provide the participant with feedback on their performance, and emphasize what they’re doing correctly

Aspects of Quality Participation
  Autonomy: no agreement
  Belongingness: no agreement
  Challenge: no agreement
  Engagement: low agreement
  Mastery: high agreement
  Meaning: no agreement
  Validation: low agreement
  Physical Environment: no agreement
  Social Environment: moderate agreement
  Activity Environment: no agreement

Strategy Fostered:
Record or log exercises performed
Example(s): Have participants or staff members/volunteers write down the amount of time, weight, sets and repetitions of exercises that are completed
Aspects of Quality Participation

Autonomy: no agreement
Belongingness: no agreement
Challenge: moderate agreement
Engagement: low agreement
Mastery: high agreement
Meaning: no agreement
Validation: no agreement
Physical Environment: no agreement
Social Environment: no agreement
Activity Environment: moderate agreement

Strategy Fostered:
Show participants their progressions between assessments using quantitative analysis
Example(s): Use machines that can display/show percentages of improvement in range of motion, weight, etc. to participants

Aspects of Quality Participation

Autonomy: no agreement
Belongingness: no agreement
Challenge: moderate agreement
Engagement: low agreement
Mastery: high agreement
Meaning: no agreement
Validation: no agreement
Physical Environment: no agreement
Social Environment: no agreement
Activity Environment: moderate agreement

Strategy Fostered:
Have health professionals (physiotherapist, trainer, etc.) provide advice and guidance to participants during the session
Example(s): A physiotherapist is on site, trains staff members/volunteers, or works directly with a participant at each session

Aspects of Quality Participation

Autonomy: no agreement
Belongingness: no agreement
Challenge: low agreement
Engagement: low agreement
Mastery: moderate agreement
Meaning: no agreement
Validation: low agreement
Physical Environment: no agreement
Social Environment: moderate agreement
Activity Environment: low agreement
Aspect Fostered: Meaning
Strategy Fostered:
**Encourage participants to voluntarily get involved in physical activity research studies.**
Example(s): If the program has received flyers or information about research studies, the staff members/volunteers will mention them to participants and post the information in the facility

Aspects of Quality Participation
   - Autonomy: no agreement
   - Belongingness: no agreement
   - Challenge: no agreement
   - Engagement: low agreement
   - Mastery: no agreement
   - Meaning: low agreement
   - Validation: low agreement
   - Physical Environment: no agreement
   - Social Environment: low agreement
   - Activity Environment: no agreement

Strategy Fostered:
**Post research findings of site-specific studies in the facility**
Example(s): Communicate study results through word of mouth of staff members/volunteers; Put up posters of study results in the facility

Aspects of Quality Participation
   - Autonomy: no agreement
   - Belongingness: no agreement
   - Challenge: no agreement
   - Engagement: low agreement
   - Mastery: no agreement
   - Meaning: low agreement
   - Validation: low agreement
   - Physical Environment: no agreement
   - Social Environment: low agreement
   - Activity Environment: no agreement

Strategy Fostered:
Encourage participant self-reflection, and examination of personal goals and how exercise is making them feel
Example(s): Have participants fill out a short journal entry each session

Aspects of Quality Participation
   - Autonomy: low agreement
   - Belongingness: no agreement
   - Challenge: low agreement
   - Engagement: moderate agreement
   - Mastery: moderate agreement
   - Meaning: high agreement
Validation: no agreement
Physical Environment: no agreement
Social Environment: no agreement
Activity Environment: low agreement
Aspect Fostered: Validation

Strategy Fostered:
Follow up with participants after they graduate out of the program
Example(s): Follow up with participants at 3 months post program completion via a phone call or personal meeting

Aspects of Quality Participation
- Autonomy: no agreement
- Belongingness: moderate agreement
- Challenge: no agreement
- Engagement: low agreement
- Mastery: no agreement
- Meaning: no agreement
- Validation: moderate agreement
- Physical Environment: no agreement
- Social Environment: moderate agreement
- Activity Environment: no agreement

Strategy Fostered:
Set up feedback opportunities on an ongoing basis for participants to offer personal suggestions and input on the program
Example(s): Use a comment box so participants can voice their opinions; Create a participant representative role on the organizing board

Aspects of Quality Participation
- Autonomy: low agreement
- Belongingness: low agreement
- Challenge: no agreement
- Engagement: low agreement
- Mastery: no agreement
- Meaning: low agreement
- Validation: moderate agreement
- Physical Environment: no agreement
- Social Environment: low agreement
- Activity Environment: no agreement

Strategy Fostered:
**Provide adequate training to staff members/ volunteers to ensure a high level of service in the program
Example(s): Ensure that staff members/ volunteers have specific training in physical activity for the population

Aspects of Quality Participation
- Autonomy: no agreement
- Belongingness: no agreement
- Challenge: no agreement
- Engagement: no agreement
Mastery: no agreement
Meaning: no agreement
Validation: low agreement
Physical Environment: no agreement
Social Environment: low agreement
Activity Environment: low agreement
Aspect Fostered: Physical Environment

Strategy Fostered:
Ensure that the exercise setting is reserved during each session for program members only
Example(s):
Book a space in a gym or exercise facility that can only be accessed with membership to the program

Aspects of Quality Participation
- Autonomy: no agreement
- Belongingness: no agreement
- Challenge: no agreement
- Engagement: low agreement
- Mastery: no agreement
- Meaning: no agreement
- Validation: low agreement
- Physical Environment: moderate agreement
- Social Environment: low agreement
- Activity Environment: no agreement

Strategy Fostered:
Incorporate the latest evidence-based training techniques and exercise machines.
Example(s):
Taping muscles, using electric stimulation, use of mirrors; ZeroG treadmills, functional electric stimulation bicycles

Aspects of Quality Participation
- Autonomy: no agreement
- Belongingness: no agreement
- Challenge: low agreement
- Engagement: no agreement
- Mastery: low agreement
- Meaning: no agreement
- Validation: no agreement
- Physical Environment: moderate agreement
- Social Environment: no agreement
- Activity Environment: moderate agreement

Strategy Fostered:
Offer the program out of an inclusive and safe facility such as a community centre or private facility
Example(s): Ensure the space has accessible doorways and elevators, or ramps; that the equipment is accessible and set up to allow for the use of mobility aids.

Aspects of Quality Participation
- Autonomy: no agreement
- Belongingness: no agreement
- Challenge: no agreement
Engagement: no agreement
Mastery: no agreement
Meaning: no agreement
Validation: low agreement
Physical Environment: high agreement
Social Environment: no agreement
Activity Environment: no agreement

Strategy Fostered:
Acquire intuitive, easy-to-use exercise equipment
Example(s): Use a Nu-Step machine, which guides stepping movement and is easily accessible with a swivel seat

Aspects of Quality Participation
  Autonomy: low agreement
  Belongingness: no agreement
  Challenge: low agreement
  Engagement: low agreement
  Mastery: moderate agreement
  Meaning: no agreement
  Validation: no agreement
  Physical Environment: moderate agreement
  Social Environment: no agreement
  Activity Environment: low agreement

Strategy Fostered:
Monitor facility temperature to ensure participants are exercising in the optimal environment
Example(s): Always make sure that the facility temperature is the same, and check it around 30 minutes prior to participants arriving

Aspects of Quality Participation
  Autonomy: no agreement
  Belongingness: no agreement
  Challenge: no agreement
  Engagement: low agreement
  Mastery: no agreement
  Meaning: no agreement
  Validation: no agreement
  Physical Environment: high agreement
  Social Environment: no agreement
  Activity Environment: no agreement

Strategy Fostered:
Have accessible washrooms on site
Example(s): The stalls have enough room for a wheelchair and service dog (in some cases both), as well as handles near the toilet. Accessible showers are also recommended

Aspects of Quality Participation
  Autonomy: low agreement
Belongingness: no agreement
Challenge: no agreement
Engagement: no agreement
Mastery: no agreement
Meaning: no agreement
Validation: no agreement
Physical Environment: high agreement
Social Environment: no agreement
Activity Environment: no agreement

**Strategy Fostered:**
Provide access to clean drinking water for program participants
Example(s): Have an accessible water fountain inside the gym

**Aspects of Quality Participation**
- Autonomy: no agreement
- Belongingness: no agreement
- Challenge: no agreement
- Engagement: low agreement
- Mastery: no agreement
- Meaning: no agreement
- Validation: no agreement
- Physical Environment: high agreement
- Social Environment: no agreement
- Activity Environment: no agreement

**Strategy Fostered:**
Arrange equipment within space to optimize ease of movement for participants
Example(s): Adopt an open gym concept; Ensure there is enough space for movement between areas with assistive devices

**Aspects of Quality Participation**
- Autonomy: no agreement
- Belongingness: no agreement
- Challenge: no agreement
- Engagement: low agreement
- Mastery: no agreement
- Meaning: no agreement
- Validation: no agreement
- Physical Environment: high agreement
- Social Environment: no agreement
- Activity Environment: no agreement

**Strategy Fostered:**
Provide close parking in reserved spots for program participants
Example(s): Provide parking passes to participants who drive themselves, and ensure accessible parking is on-site or in a nearby accessible location
Aspects of Quality Participation

Autonomy: no agreement
Belongingness: no agreement
Challenge: no agreement
Engagement: no agreement
Mastery: no agreement
Meaning: no agreement
Validation: low agreement
Physical Environment: moderate agreement
Social Environment: no agreement
Activity Environment: low agreement

Strategy Fostered:
Limit enrolment in sessions to ensure equal access to equipment
Example(s): Avoid accepting new participants into sessions where current participants are often waiting to use the equipment

Aspects of Quality Participation

Autonomy: no agreement
Belongingness: no agreement
Challenge: no agreement
Engagement: low agreement
Mastery: no agreement
Meaning: no agreement
Validation: low agreement
Physical Environment: moderate agreement
Social Environment: no agreement
Activity Environment: low agreement

Strategy Fostered:
Increase financial accessibility to the program
Example(s): Create new and different payment schedules or offer membership subsidies

Aspects of Quality Participation

Autonomy: no agreement
Belongingness: no agreement
Challenge: no agreement
Engagement: low agreement
Mastery: no agreement
Meaning: no agreement
Validation: no agreement
Physical Environment: moderate agreement
Social Environment: no agreement
Activity Environment: low agreement
Aspect Fostered: Social Environment

Strategy Fostered:
Recruit staff members/ volunteers with diverse personalities
Examples(s): Recruit volunteers of various ages, personality traits, and educational backgrounds

Aspects of Quality Participation
  - Autonomy: no agreement
  - Belongingness: moderate agreement
  - Challenge: no agreement
  - Engagement: no agreement
  - Mastery: no agreement
  - Meaning: no agreement
  - Validation: no agreement
  - Physical Environment: no agreement
  - Social Environment: high agreement
  - Activity Environment: no agreement

Strategy Fostered:
Facilitate interaction between participants, individuals who are involved in different programs, and other staff at the facility
Example(s): Begin the exercise session with a group meeting; Include activities where participants may work together (for group-based exercise program)

Aspects of Quality Participation
  - Autonomy: no agreement
  - Belongingness: high agreement
  - Challenge: no agreement
  - Engagement: low agreement
  - Mastery: no agreement
  - Meaning: low agreement
  - Validation: low agreement
  - Physical Environment: no agreement
  - Social Environment: high agreement
  - Activity Environment: low agreement

Strategy Fostered:
Have staff members/ volunteers provide one-on-one social support for the participants (for individual-based exercise program)
Example(s): Engage in conversation with the participant; Have staff members/ volunteers show interest in participants and their lives (i.e. ask about how they have been since they last came to the program)

Aspects of Quality Participation
  - Autonomy: no agreement
  - Belongingness: high agreement
  - Challenge: no agreement
  - Engagement: low agreement
Mastery: no agreement
Meaning: no agreement
Validation: moderate agreement
Physical Environment: no agreement
Social Environment: high agreement
Activity Environment: no agreement

Strategy Fostered:
Keep the same staff members/ volunteers working with the same participant during exercise sessions (for individual-based exercise program)
Example(s): Designate a specific volunteer to introduce the participant to the exercise facility upon entry to the program, and ensure the same volunteer/staff member is consistently working with that participant

Aspects of Quality Participation
- Autonomy: no agreement
- Belongingness: moderate agreement
- Challenge: no agreement
- Engagement: moderate agreement
- Mastery: no agreement
- Meaning: no agreement
- Validation: low agreement
- Physical Environment: no agreement
- Social Environment: high agreement
- Activity Environment: no agreement

Strategy Fostered:
Welcome a family member or caregiver to be present (but not participate) at the program
Example(s): Family members can join other community exercise programs at the facility

Aspects of Quality Participation
- Autonomy: no agreement
- Belongingness: low agreement
- Challenge: no agreement
- Engagement: low agreement
- Mastery: no agreement
- Meaning: no agreement
- Validation: no agreement
- Physical Environment: no agreement
- Social Environment: high agreement
- Activity Environment: no agreement

Strategy Fostered:
Have staff members/ volunteers float or circulate constantly
Example(s): Monitor participants to ensure that they are performing their exercises; Provide positive feedback to individuals who are struggling or have negative attitudes

Aspects of Quality Participation
- Autonomy: no agreement
Belongingness: no agreement
Challenge: no agreement
Engagement: moderate agreement
Mastery: no agreement
Meaning: no agreement
Validation: low agreement
Physical Environment: high agreement
Social Environment: no agreement
Activity Environment: low agreement

Strategy Fostered:
Have staff members/ volunteers provide encouragement and motivation
Example(s): Verbal persuasion to continue with the exercise, and comments such as "You can do it!"

Aspects of Quality Participation
  Autonomy: no agreement
  Belongingness: moderate agreement
  Challenge: low agreement
  Engagement: high agreement
  Mastery: low agreement
  Meaning: no agreement
  Validation: moderate agreement
  Physical Environment: no agreement
  Social Environment: high agreement
  Activity Environment: no agreement

Strategy Fostered:
Practice problem solving together with the participant
Example(s): Provider works with the participant to adapt exercises based on participants' concerns about an exercise

Aspects of Quality Participation
  Autonomy: low agreement
  Belongingness: no agreement
  Challenge: low agreement
  Engagement: moderate agreement
  Mastery: low agreement
  Meaning: no agreement
  Validation: low agreement
  Physical Environment: no agreement
  Social Environment: moderate agreement
  Activity Environment: no agreement

Strategy Fostered:
Model/ demonstrate persistence in exercise through group taught sessions, pamphlets, stories, and workshops, etc.
Example(s): Invite a graduate of the program to speak about their exercise journey and the challenges they overcame while being a part of the program

Aspects of Quality Participation
- Autonomy: no agreement
- Belongingness: no agreement
- Challenge: no agreement
- Engagement: moderate agreement
- Mastery: moderate agreement
- Meaning: moderate agreement
- Validation: low agreement
- Physical Environment: no agreement
- Social Environment: moderate agreement
- Activity Environment: no agreement

Strategy Fostered:
Utilize social media to facilitate the sharing of program participants’ successes
Example(s): Tag participants in posts where they achieve their goals; Send videos and photos to participants so they can share them with their own followers

Aspects of Quality Participation
- Autonomy: no agreement
- Belongingness: moderate agreement
- Challenge: no agreement
- Engagement: low agreement
- Mastery: low agreement
- Meaning: low agreement
- Validation: low agreement
- Physical Environment: no agreement
- Social Environment: moderate agreement
- Activity Environment: no agreement

Strategy Fostered:
Allow past program participants to return, volunteer at the program, and act as role models to current participants
Example(s): Graduates come back to socialize, interact, and speak with current participants; Graduates from the program volunteer to hold discussions/ focus groups on relevant topics

Aspects of Quality Participation
- Autonomy: no agreement
- Belongingness: moderate agreement
- Challenge: no agreement
- Engagement: low agreement
- Mastery: no agreement
- Meaning: moderate agreement
- Validation: moderate agreement
- Physical Environment: no agreement
- Social Environment: moderate agreement
Activity Environment: no agreement

**Strategy Fostered:**
Practice active listening to help the participants to feel supported and heard
**Examples(s):** Instruct staff members/ volunteers to validate the concerns of the participant; Instruct staff members/ volunteers to listen instead of providing advice to the participant

**Aspects of Quality Participation**
- Autonomy: no agreement
- Belongingness: moderate agreement
- Challenge: no agreement
- Engagement: low agreement
- Mastery: no agreement
- Meaning: no agreement
- Validation: moderate agreement

Physical Environment: no agreement
Social Environment: high agreement
Activity Environment: no agreement

**Strategy Fostered:**
Practice individualized consideration, where staff members/ volunteers address unique participant needs with compassion and empathy
**Example(s):** Treat all participants as individuals; Ask participants about the way that they would most like to be supported

**Aspects of Quality Participation**
- Autonomy: low agreement
- Belongingness: moderate agreement
- Challenge: no agreement
- Engagement: low agreement
- Mastery: no agreement
- Meaning: no agreement
- Validation: high agreement

Physical Environment: no agreement
Social Environment: moderate agreement
Activity Environment: no agreement

**Strategy Fostered:**
Provide access to experts and services who can give the necessary emotional, tangible, and informational support for participants
**Example(s):** Refer participants to online regional platforms to find personal resources; have contact information of relevant experts and services

**Aspects of Quality Participation**
- Autonomy: no agreement
- Belongingness: low agreement
- Challenge: no agreement
- Engagement: low agreement
- Mastery: low agreement
Meaning: no agreement
Validation: moderate agreement
Physical Environment: no agreement
Social Environment: moderate agreement
Activity Environment: no agreement

Strategy Fostered:
Practice open and continuous communication with the participant
Example(s): Ask questions to see how the participant is doing; Have staff members/volunteers be genuine, friendly, and warm when interacting with participants so they feel comfortable

Aspects of Quality Participation
   Autonomy: no agreement
   Belongingness: moderate agreement
   Challenge: no agreement
   Engagement: moderate agreement
   Mastery: no agreement
   Meaning: no agreement
   Validation: moderate agreement
   Physical Environment: no agreement
   Social Environment: high agreement
   Activity Environment: no agreement

Strategy Fostered:
Have program leaders engage in community outreach to spread awareness of opportunities for persons with disability
Example(s): Program leaders continually seek out partnerships with relevant stakeholders; Program leaders take part in community events and fundraisers

Aspects of Quality Participation
   Autonomy: no agreement
   Belongingness: no agreement
   Challenge: no agreement
   Engagement: low agreement
   Mastery: no agreement
   Meaning: low agreement
   Validation: no agreement
   Physical Environment: no agreement
   Social Environment: moderate agreement
   Activity Environment: no agreement

Strategy Fostered:
Encourage the staff members/volunteers to be eager and have positive attitudes while at the program
Example(s): Instruct staff members/volunteers to be friendly and welcome each member when they enter the gym

Aspects of Quality Participation
   Autonomy: no agreement
   Belongingness: moderate agreement
Challenge: no agreement
Engagement: moderate agreement
Mastery: no agreement
Meaning: no agreement
Validation: moderate agreement
Physical Environment: no agreement
Social Environment: high agreement
Activity Environment: no agreement

Strategy Fostered:
Train staff members/ volunteers to be sensitive to the social, accessibility, and physical activity needs of the population participating in the program
Example(s): Make suggestions for participant progression, rather than dictating or pushing progression on the participant; Ask a participant if they require assistance with mobility and ambulation

Aspects of Quality Participation
  Autonomy: low agreement
  Belongingness: moderate agreement
  Challenge: no agreement
  Engagement: low agreement
  Mastery: no agreement
  Meaning: no agreement
  Validation: moderate agreement
  Physical Environment: no agreement
  Social Environment: high agreement
  Activity Environment: no agreement

Strategy Fostered:
Enforce a zero tolerance rule for inappropriate behaviour
Example(s): Gently remind participants to minimize disruptions during group exercise; Privately speak to participants who behave inappropriately and communicate the consequences of continued behaviour

Aspects of Quality Participation
  Autonomy: no agreement
  Belongingness: low agreement
  Challenge: no agreement
  Engagement: low agreement
  Mastery: no agreement
  Meaning: no agreement
  Validation: low agreement
  Physical Environment: no agreement
  Social Environment: high agreement
  Activity Environment: no agreement
Strategy Fostered:
Ensure staff members/volunteers are knowledgeable about the specific impairments or symptoms of the participants (in a confidential way)
Example(s): Only provide non-identifying, relevant information about a participant's contraindications to exercise so that the staff member/volunteer can properly support the participant

Aspects of Quality Participation
Autonomy: no agreement
Belongingness: no agreement
Challenge: low agreement
Engagement: no agreement
Mastery: no agreement
Meaning: no agreement
Validation: low agreement
Physical Environment: no agreement
Social Environment: moderate agreement
Activity Environment: no agreement

Strategy Fostered:
Create an open, honest and supportive environment where differences are accepted rather than frowned upon
Example(s): Inform volunteers from the beginning (their orientation session) that the welcoming atmosphere is one of the most important parts of the program

Aspects of Quality Participation
Autonomy: no agreement
Belongingness: high agreement
Challenge: no agreement
Engagement: low agreement
Mastery: no agreement
Meaning: no agreement
Validation: moderate agreement
Physical Environment: no agreement
Social Environment: high agreement
Activity Environment: no agreement

Strategy Fostered:
Have staff members/volunteers encourage participants to build and utilize their own support networks Example(s): Encourage participants to create/initiate or join common-interest groups together that are outside of the exercise program

Aspects of Quality Participation
Autonomy: moderate agreement
Belongingness: moderate agreement
Challenge: no agreement
Engagement: low agreement
Mastery: no agreement
Meaning: low agreement
Validation: no agreement
Physical Environment: no agreement
Social Environment: high agreement
Activity Environment: no agreement

**Strategy Fostered:**
Practice caring attitudes and be non-judgmental and empathetic during interactions with participants Example(s): Focus on participants’ interests and their participation in the exercise program, rather than their impairment

**Aspects of Quality Participation**
- Autonomy: no agreement
- Belongingness: moderate agreement
- Challenge: no agreement
- Engagement: low agreement
- Mastery: no agreement
- Meaning: no agreement
- Validation: moderate agreement
- Physical Environment: no agreement
- Social Environment: high agreement
- Activity Environment: no agreement

**Strategy Fostered:**
Expand the inclusion criteria for the population eligible to sign up for the program Example(s): A program that normally works with individuals with cerebral palsy could expand it’s network to work with stroke victims

**Aspects of Quality Participation**
- Autonomy: no agreement
- Belongingness: low agreement
- Challenge: no agreement
- Engagement: no agreement
- Mastery: no agreement
- Meaning: no agreement
- Validation: no agreement
- Physical Environment: no agreement
- Social Environment: moderate agreement
- Activity Environment: low agreement

**Strategy Fostered:**
Ensure that the program leaders are present at the program Example(s): Have the program leaders and directors drop in to the program sessions from time to time to meet and interact with participants

**Aspects of Quality Participation**
- Autonomy: no agreement
- Belongingness: low agreement
- Challenge: no agreement
Engagement: no agreement
Mastery: no agreement
Meaning: no agreement
Validation: moderate agreement
Physical Environment: no agreement
Social Environment: high agreement
Activity Environment: no agreement

**Strategy Fostered:**
Have an experienced staff member/volunteer present to provide support to junior staff members/volunteers

**Example(s):** Internship students or older volunteers self-identify at the beginning of the session, and can answer the questions of new volunteers

**Aspects of Quality Participation**
- Autonomy: no agreement
- Belongingness: low agreement
- Challenge: no agreement
- Engagement: no agreement
- Mastery: no agreement
- Meaning: no agreement
- Validation: low agreement
- Physical Environment: no agreement
- Social Environment: high agreement
- Activity Environment: no agreement
Aspect Fostered: Activity Environment

Strategy Fostered:
Offer modifications for exercises
Examples(s): Have extra equipment (such as different weights, therabands, bosu balls, etc.) close by for adaptations to the chosen exercise

Aspects of Quality Participation
  Autonomy: low agreement
  Belongingness: no agreement
  Challenge: low agreement
  Engagement: low agreement
  Mastery: low agreement
  Meaning: no agreement
  Validation: no agreement
  Physical Environment: moderate agreement
  Social Environment: no agreement
  Activity Environment: moderate agreement

Strategy Fostered:
Provide variation in the modality of exercise instruction, according to the needs of the participant
Example(s): Instructors demonstrate exercises themselves, explain the exercise verbally, physically provide start and end points for movements, help participants move their bodies with the correct form, etc.

Aspects of Quality Participation
  Autonomy: low agreement
  Belongingness: no agreement
  Challenge: moderate agreement
  Engagement: moderate agreement
  Mastery: moderate agreement
  Meaning: no agreement
  Validation: no agreement
  Physical Environment: no agreement
  Social Environment: no agreement
  Activity Environment: high agreement

Strategy Fostered:
Ensure that the ratio of staff members/volunteers to participants is low
Example(s): Book appointments for exercise sessions for adequate support and personnel to help during a participant’s attendance; For Individual-based exercise: 1:1; For group-based exercise, 1:4

Aspects of Quality Participation
  Autonomy: no agreement
  Belongingness: no agreement
  Challenge: no agreement
  Engagement: low agreement
Mastery: low agreement
Meaning: no agreement
Validation: low agreement
Physical Environment: no agreement
Social Environment: low agreement
Activity Environment: moderate agreement

Strategy Fostered:
Perform prescribed exercises in an alternative format, if the machine or equipment that is needed is being used
Example(s): Suggest using a theraband for a chest press; Rotate the order of exercises in the participant's routine to use a free machine

Aspects of Quality Participation
  Autonomy: low agreement
  Belongingness: no agreement
  Challenge: low agreement
  Engagement: low agreement
  Mastery: low agreement
  Meaning: no agreement
  Validation: no agreement
  Physical Environment: low agreement
  Social Environment: no agreement
  Activity Environment: high agreement

Strategy Fostered:
Separate a participant's exercises by providing the option for intermittent breaks
Example(s): Indicate in a participant's exercise routine when breaks should be taken

Aspects of Quality Participation
  Autonomy: low agreement
  Belongingness: no agreement
  Challenge: no agreement
  Engagement: no agreement
  Mastery: low agreement
  Meaning: no agreement
  Validation: no agreement
  Physical Environment: no agreement
  Social Environment: no agreement
  Activity Environment: high agreement