

Figure S1. The Medical Research Council Framework Highlighting the Development Process of Physical Activity Together for MS (PAT-MS).

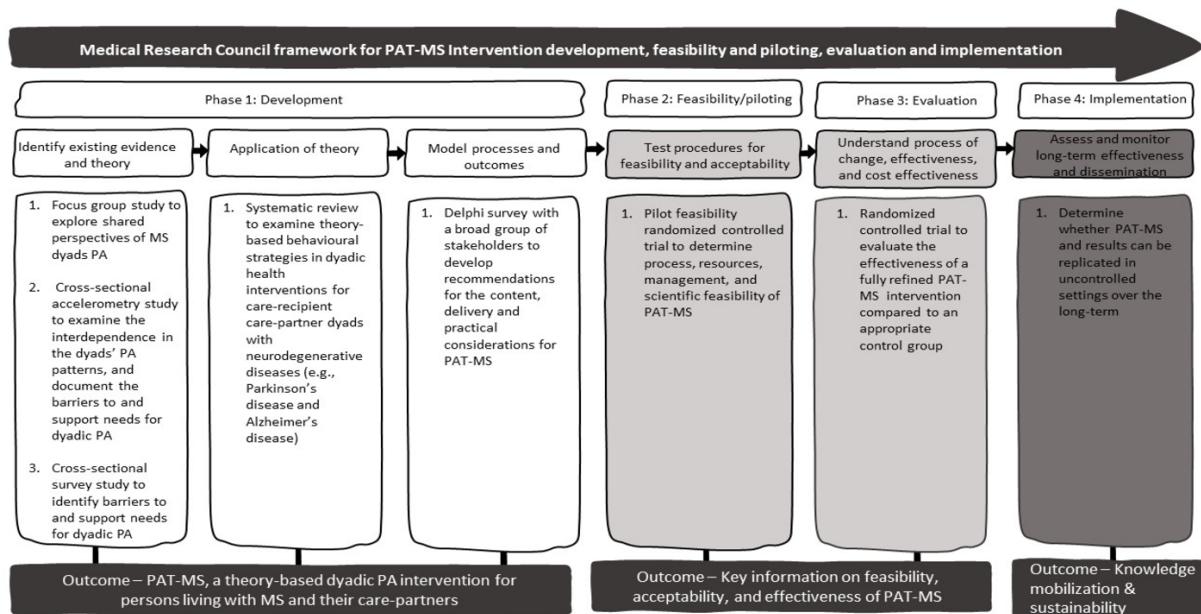


Table S1. Recruitment Strategies and Inclusion Criteria for Delphi Participants

Stakeholder group	Recruitment methods	Inclusion criteria
People with MS	<ul style="list-style-type: none"> Existing community partners (eg, MS Society of Canada) A database of previous participants in our research studies Snowballing technique – participants were asked to refer other suitable individuals 	<ul style="list-style-type: none"> Self-reported diagnosis of MS At least 18 years old Requires a walking aid (eg, cane) to walk about 100m with or without rest Have access to a computer, tablet, or smartphone to complete the surveys Self-report no cognitive difficulty that significantly interferes with daily functioning
MS care partners	<ul style="list-style-type: none"> MS Existing community partners (eg, MS Society of Canada) A database of previous participants in our research studies 	<ul style="list-style-type: none"> A family member or close friend of a person with MS At least 18 years old Currently providing at least 1 hour of unpaid assistance/support for a person living with MS Have access to a computer, tablet, or smartphone to complete the surveys

	<ul style="list-style-type: none"> • Snowballing technique 	<ul style="list-style-type: none"> • Self-report no cognitive difficulty that significantly interferes with daily functioning
Clinicians	<ul style="list-style-type: none"> • Researchers' own professional networks • Snowballing technique 	<ul style="list-style-type: none"> • Clinicians with at least 5 years of experience working with people with MS or designing/delivering physical activity programs for people with MS • Have access to a computer, tablet, or smartphone to complete the surveys
Representatives of community organizations	<ul style="list-style-type: none"> • MS Society of Canada • Carers Canada • Canadian Caregiver Network • Snowballing technique 	<ul style="list-style-type: none"> • Individuals with at least 2 years of experience working in an organization that provides support services for people affected by MS

Table S2. Items With Multiple-Choice Responses by Stakeholder Group

	People with MS	MS care partners	Clinicians	Organization representatives	Total n (%)
	No. of participants				
<i>Content items (n = 1)</i>					
Should the intervention include content related to building a strong social support system for PA participation? (C6)					
Yes	7	4	9	1	21 (78)
No	2	0	0	0	2 (7)
I don't know	0	1	2	1	4 (15)
<i>Delivery items (n = 4)</i>					
What is the optimal delivery platform for the intervention group sessions? (D1A)					
Teleconference	1	1	1	0	3 (11)
Videoconference	4	4	9	2	19 (70)
Other	4	0	1	0	5 (19)

What is the appropriate group composition for the intervention sessions? (D1B)

Dyadic groups	4	3	7	2	16 (59)
Individual groups	2	1	0	0	3 (11)
Other	3	1	4	0	8 (30)

Retain module order (D3)

Module 1	8	4	9	2	23 (85)
Module 2	4	3	3	1	11 (41)
Module 3	5	3	3	1	12 (44)
Module 4	4	2	6	1	13 (48)
Module 5	4	4	7	2	17 (63)
Module 6	9	5	11	2	27 (100)

What is the most effective method for tracking PA in the context of this intervention? (D6)

Paper and pen	3	2	3	0	8 (30)
Excel log	1	1	0	0	2 (7)
Software app	3	0	4	1	8 (30)
Other – option of paper and pen or software app	2	2	4	1	9 (33)

Practical/logistical items (n = 3)

How appropriate is the amount of content covered in each session of the PAT-MS manual? (P1)

Too much content	0	1	1	0	2 (7)
Adequate content	8	2	10	2	22 (82)
Too little content	1	1	0	0	2 (7)
I don't know	0	1	0	0	1 (4)

What is the appropriate duration for each group session? (P3)

30 minutes	1	2	3	0	6 (22)
45 minutes	6	0	4	1	11 (41)
60 minutes	2	3	2	1	8 (30)
Other	0	0	2	0	2 (7)

What is the appropriate duration for the one-on-one support calls with the activity coach? (P5)

10-15 minutes	1	2	3	0	6 (22)
15-20 minutes	8	2	5	2	17 (63)

>20 minutes	0	1	1	0	2 (7)
Other	0	0	2	0	2 (7)

MS, multiple sclerosis; physical activity, PA; Physical Activity Together for MS, PAT-MS.

Table S3. Summary of Key Recommendations for the Physical Activity Together for MS (PAT-MS) Intervention

Intervention Content Areas	
C1	Inclusion of PA guidelines for people with MS and adults in the general population. This content needs to be presented in a way that emphasizes the principle that some activity is better than no activity and encourages lifestyle activities in addition to exercise.
C2	Inclusion of content on the safety of PA for people with MS and care partners. Existing misconceptions about the safety of PA for persons living with MS must be combated throughout the delivery of the intervention.
C3	Inclusion of content on the benefits of PA for people with MS and care partners.
C4	Inclusion of content related to dyadic/collaborative coping when 1 partner has a chronic disease. Research evidence demonstrating how PA directly helps with dyadic coping needs to be included.
C5	Inclusion of content on motivation and how to build motivation for PA.
C6	Inclusion of content related to how to build a strong social support system for PA participation. Pay attention to how this content is framed to ensure that a strengths-based approach is utilized and potential opportunities for growth in this area are emphasized.
C7	Inclusion of behavioral strategies such as goal setting and action planning.
C8	Inclusion of additional resources to direct participants to available community-based supports. These resources need to be up-to-date and available nationally at no cost to participants to promote access.
Intervention Delivery Areas	
D1A	The use of dyadic intervention group sessions (ie, a person with MS and their care partner with 1-2 other partnerships together in each group). Include some activities/breakouts during the group sessions for people with MS and care partners separately.
D1B	The use of videoconferencing as a delivery platform, rather than teleconferencing, may promote more group interaction and social support.
D2	The use of 1-on-1 support calls to reinforce the information provided during the group sessions.

- D3 The use of a modular structure to present PAT-MS intervention content. Ensure that the modules are arranged in a logical manner that preserves content flow and topic connectivity.
- D4 The inclusion of opportunities for group discussion during the sessions.
- D5 The inclusion of practice activities at the end of each session. Practice activities will serve as opportunities for participants to apply what they have learned during the group sessions.
- D6 The inclusion of options (ie, pen and paper journaling or a software app) for tracking physical activity during the PAT-MS intervention. These options should be based on participants' preferences to promote compliance.
- D7 The involvement of an activity coach with knowledge and understanding of material/content.
- D8 The involvement of an activity coach with group facilitation skills.
- D9 Inclusion of opportunities for participants to build meaningful relationships with other group members within the intervention sessions.

Practical and Logistic Considerations

- P1 An adequate amount of material is covered within each module. The length and content of modules is reasonable and appropriate for the PAT-MS participants and intervention goals
 - P2 Deliver biweekly (every other week) group sessions.
 - P3 Duration of group sessions should last between 45 and 60 minutes.
 - P4 Deliver biweekly (every other week) 1-on-1 support calls.
 - P5 Duration of 1-on-1 support calls with an activity coach should last between 15 and 20 minutes. Flexibility is needed during the support calls, as the duration of each call could vary based on participants' needs.
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MS, multiple sclerosis; PA, physical activity.