

Active participation in sport for individuals with multiple sclerosis

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Multiple Sclerosis (MS)

- Neurodegenerative disease
- Onset – 20-40 years¹
- Engaged in sport, active leisure, family pursuits and employment
- Rehabilitation: strength, function and basic mobility
- Participation in an active lifestyle demands high-level mobility



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Aim and objectives

Aim:

*To explore the **experience of participation in sport and exercise** for individuals with MS with minimal disability.*

Objectives:

*To gain an understanding of **key factors that influence participation in sport and exercise***

*To determine the **support required to participate in sport and exercise for as long as possible***

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Methods

- Qualitative, descriptive study
- Three focus groups in northern Queensland, Australia
- Individuals with MS with minimal disability
 - Expanded Disability Status Score (EDSS) 0-4
- Purposive selection to gain maximum variation
 - Exercise participation
- Inductive thematic analysis



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Participants

Number of participants	16
Gender	Female=14; Male=2
Age at onset (mean)	43 years [SD 8.9]
EDSS level (mean)	1.3 [SD 1.3]
Duration of MS (mean)	7 years [SD 7]
Exercising regularly	63%
Employment status	37.5% full-time; 37.5% part-time; 25% not working
Dependent children	50%

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Key themes



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Personally engaging with exercise

Mode and mobility level



- Trail running
- Squash
- Boxing
- Outdoor cycling



- Gym
- Yoga
- Walking



Mental and physical benefits

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Influencing barriers and enablers of exercise



- Fear
- Judgement
- Heat
- Fatigue

I just feel like the mental factors after diagnosis affect absolutely everything but they seriously affect your ability to exercise.

FG1 female participant

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Sustaining independence



Using sport and exercise to:

- Remain well
- Sustain mobility
- Retain roles and lifestyle

*My motivation is - do you want to be pushed around in a wheelchair?
So I get up and I get dressed and I go for a run because, I do believe I have that attitude of I must exercise... I must stay mobile as long as I can.*

And I will live by that for as long as I can.

FG3 female participant

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Integrating into lifestyle



- Meaningful activity
- Roles and responsibilities
- Social exercise
- Healthy lifestyle

I'd have to work out what I need to achieve for the day

FG1 female participant

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Getting the balance right



- Listening to body
- Personal strategies for management
- Personal support around sport and exercise

Personalised plans because I think everyone of us has a problem with something different.

FG1 female participant

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What do we know?

- Exercise modes
 - Treadmill walking⁴
 - Progressive resistance exercise³
- Minimal physical activity guidelines⁵
 - Mild to moderate disability
- Limitations in exercise consultation⁶

What do we want?

- Challenging sports and exercise
- Integrated active lifestyle
- Personal informed choice
- Optimum guidelines
- Risk assessment
- Access to health professionals with knowledge of MS and exercise
- Personalised plans

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Getting the balance right!

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References

1. Mitchell GW, Zaydan I. Multiple sclerosis In: Biller J, ed. Practical neurology. 4th ed. Philadelphia, PA: Lippincott Williams & Wilkins; 2012.
2. Swinnen E, Beckwee D, Pinte D, Meeusen R, Baeyens JP, Kerckhofs E. Treadmill training in multiple sclerosis: can body weight support or robot assistance provide added value? A systematic review. *Mult Scler Int.* 2012;2012:240274. doi:0.1155/2012/240274.
3. Kjølhede T, Vissing K, Dalgas U. Multiple sclerosis and progressive resistance training: a systematic review. *Multiple Sclerosis Journal.* April 24, 2012 2012. doi: 10.1177/1352458512437418.
4. Latimer-Cheung AE, Martin Ginis KA, Hicks AL, et al. Development of evidence-informed physical activity guidelines for adults with multiple sclerosis. *Arch Phys Med Rehabil.* 9// 2013;94(9):1829-1836.e1827. doi:10.1016/j.apmr.2013.05.015.
5. Learmonth YC, Adamson BC, Balto JM, et al. Multiple sclerosis patients need and want information on exercise promotion from healthcare providers: a qualitative study. *Health Expect.* Aug 2017;20(4):574-583. doi:10.1111/hex.12482.

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