



A Systematic Review of Vocational Rehabilitation for People with Multiple Sclerosis

Blanca De Dios Pérez¹, Kathryn Radford², Nikos Evangelou³, Roshan das Nair^{1&4}

¹Division of Psychiatry & Applied Psychology, School of Medicine, University of Nottingham; ²Division of Rehabilitation and Ageing, School of Medicine, University of Nottingham; ³Division of Clinical Neuroscience, School of Medicine, University of Nottingham; ⁴Institute of Mental Health, Nottinghamshire Healthcare Trust
Contact: blanca.dediosperez@Nottingham.ac.uk / Twitter: @BlancaDios

Background and Aims

Background: Multiple Sclerosis (MS) is the most common neurological condition affecting young adults. People are usually diagnosed between 20 to 40 years of age, the prime working years of an adult¹. Physical, cognitive and psychological problems that MS presents can lead to difficulties at work. Fewer than 50% of people with MS remain at work after 10 years, decreasing to 20-40% after 15 years². Considering the early age of diagnosis and chronic character of MS, it is important to understand what can be done to support this population at work.

Vocational Rehabilitation can enable people with illness or disability to access, maintain or return to employment or other useful occupation³. However, there is limited evidence about the effectiveness of vocational rehabilitation for people with MS.

Aims: To identify vocational rehabilitation interventions that have been implemented with people with MS and to describe the characteristics of the participants, approaches, treatment components and underlying mechanisms.

Methods

Data Sources: A comprehensive search was run on six electronic databases. Charities and organisations that fund MS research were contacted to obtain research reports not published in academic databases. The search was last run in July 2019.

Inclusion Criteria: Adults (+18) with MS; study describes a vocational rehabilitation intervention or its components; primary goal to improve work capability or occupational outcomes such as sickness absence.

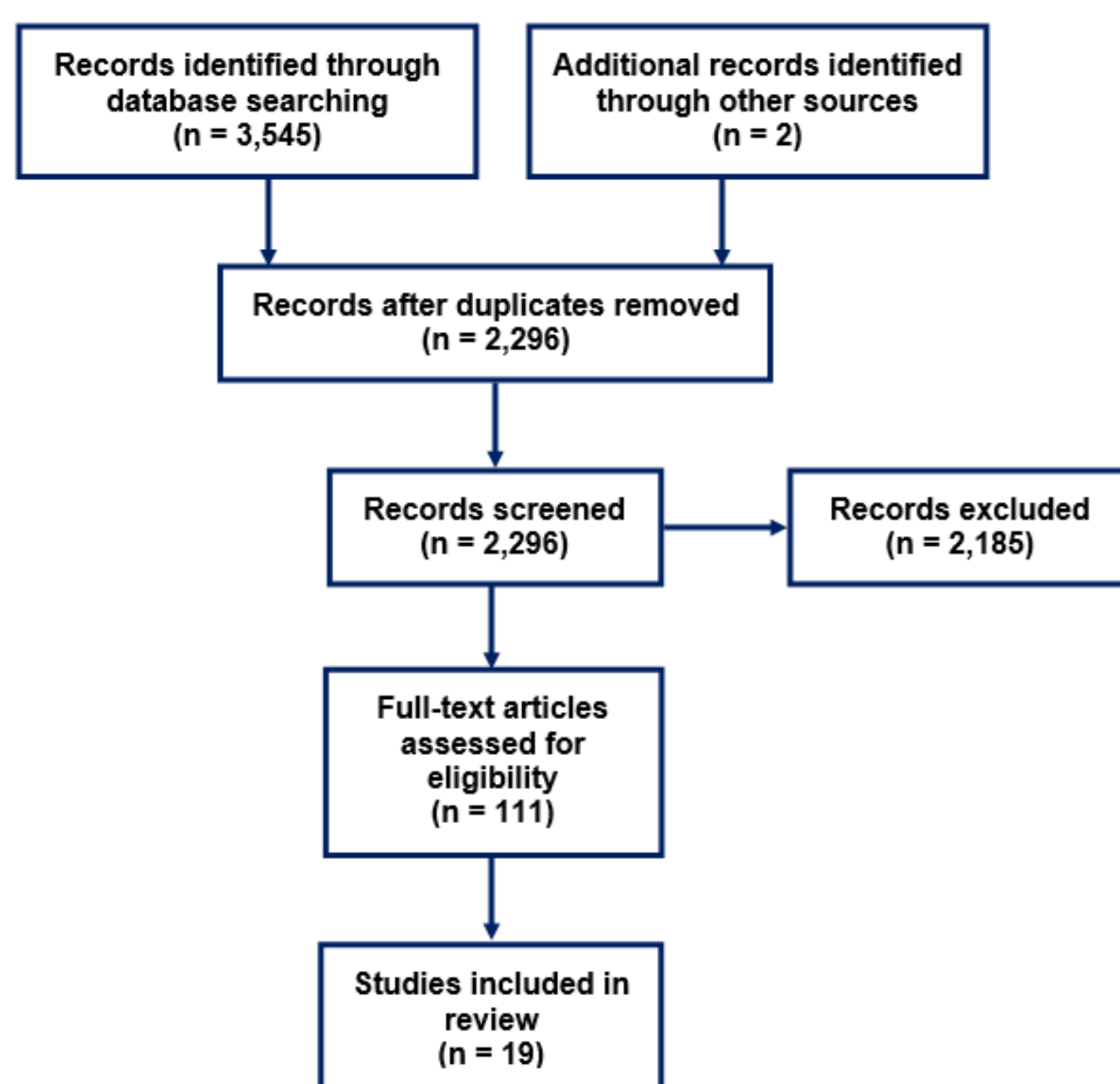
Exclusion Criteria: Less than 50% of participants had MS; the intervention was not focused on improving work capability; the study focused on barriers or enablers to work with MS; magazines and brochures.

Data Extraction: Information on intervention characteristics was extracted. The TIDieR Checklist⁴ (Template for Intervention Description and Replication) was completed for all the interventions.

Quality Assessment: Due to the heterogeneity of study design, the typology from the National Service Framework (NSF) for Long Term Neurological Conditions⁵ was used to assess study quality.

Results

Figure 1: Prisma Flowchart

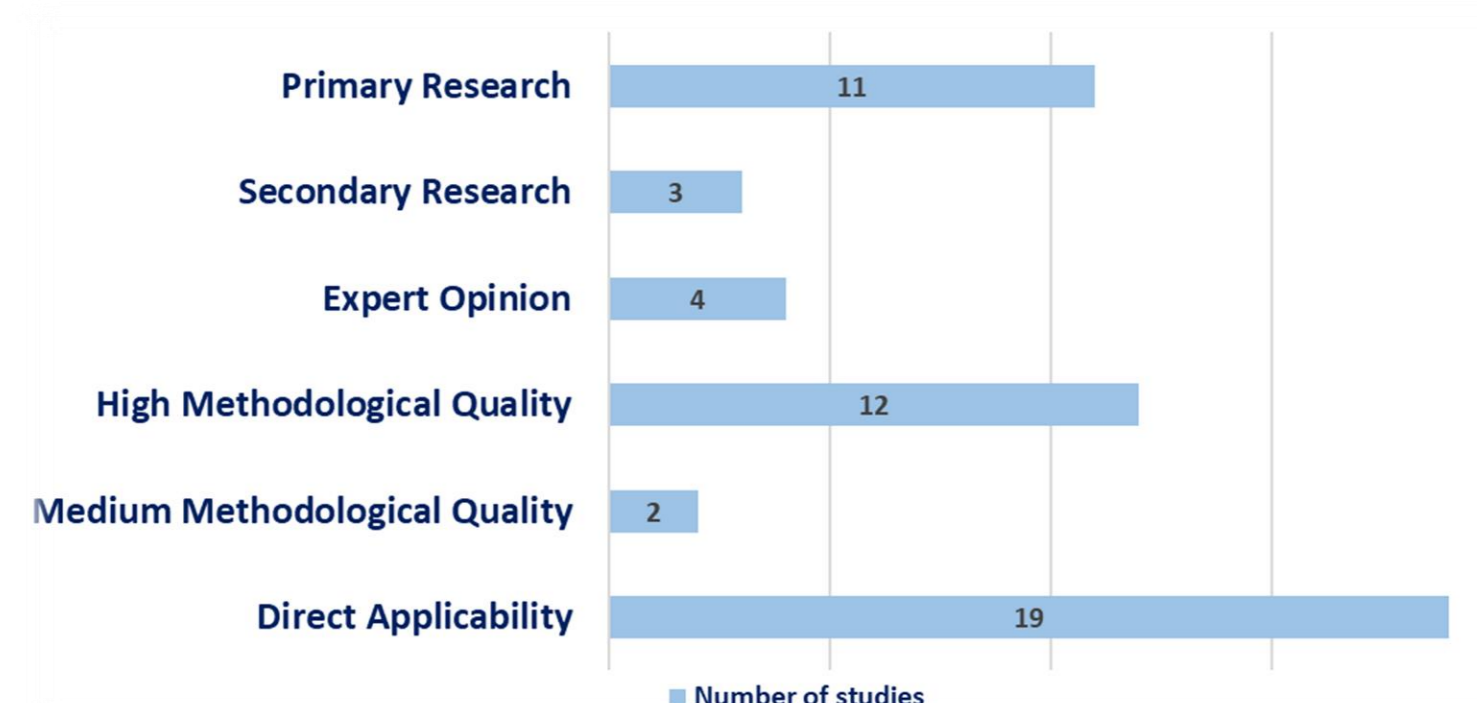


- We identified 2,296 studies after excluding duplicates and reviewing reference lists of included studies. **Nineteen studies were included.**
- Twelve were research articles, one PhD thesis, two conference abstracts, and four expert opinion pieces.
- Thirteen vocational rehabilitation interventions** for people with MS were identified; five aimed at return to work, six at job retention, and two generic vocational rehabilitation programmes.
- Comprehensive quantitative analysis was not possible** due to methodological heterogeneity and diversity of outcomes measured. The **full description of the intervention was only available for two interventions** as per the TIDieR Checklist⁴.
- Intervention characteristics varied widely.
- The professionals involved in delivering interventions were **occupational therapists, vocational rehabilitation counsellors, psychologists, and rehabilitation professionals.**
- The most common delivery mode was a combination of support **face-to-face and via telephone. Group interventions** to promote peer support were also common.
- Most interventions lasted several weeks (range 4 to 16). The longest intervention lasted **twelve months.**
- Only two interventions were implemented outside the **USA** (one in the **UK** and one in **Australia**)

Table 1 Characteristics of vocational rehabilitation for people with MS

| Vocational Rehabilitation for people with MS | |
|--|---|
| Participants | A total of 9083 people with MS received vocational rehabilitation. Participants age ranged between 24-65 years. Most participants were women (67.6%), unemployed (70.1%) and presented with Relapsing-Remitting MS (81.9%). The characteristics of the participants included align with the demographic characteristics of MS. |
| Approaches | The approaches were classified according to the rationale behind the development. The main approaches are: <ul style="list-style-type: none"> • Empowerment • Early Intervention • Target Population-Centred • Job Placement Intervention These approaches are not mutually exclusive. Several interventions followed more than one approach. |
| Treatment Components | Each intervention included between one and seven treatment components. The most common were education about MS and legal rights, support finding a new job and workplace accommodations. |
| Underlying Mechanisms | The likely mechanisms of action of these interventions include tailoring interventions to the client, early intervention, increasing awareness about MS, empowerment, and employer engagement. |

Figure 2: Quality Assessment NSF-Typology



Discussion

We identified 13 vocational rehabilitation interventions for people with MS. Since vocational rehabilitation can be used to support people with disabilities to access, maintain or return to employment, there was considerable variability in terms of professionals delivering the intervention, outcomes measured, and delivery mode.

All interventions paid particular interest in educating both the person with MS and the employer to improve their relationship and raise awareness about the condition. Providing vocational rehabilitation soon after diagnosis (early intervention) was also key. This preventive approach can reduce workplace barriers and reduce the numbers of people relinquishing that leave employment at a young age.

Unfortunately, full description of the intervention was not available in 11 cases, making replication difficult and limiting progress in vocational rehabilitation research for people with MS.

Future studies reporting interventions should follow the TIDieR guidelines to ensure the interventions can be replicated and researchers have enough information to build on research evidence.

References

- ¹Brown CL. Expanding the Occupational Therapy Role to Support Transitions From Work to Retirement for People With Progressive Health Conditions. *AJOT*. 2018;72(6):7206347010p1.
- ²Cardone A. Having the conversation about work with people with multiple sclerosis: a guide for healthcare professionals. *Neurodegener Dis Manag*. 2017;7(6):41-4.
- ³British Society of Rehabilitation Medicine. Vocational Rehabilitation-The Way Forward. 2nd edition. BSRM Working Party Report. 2003.
- ⁴Hoffmann T, Glasziou P, Boutron I, Milne R, Perera R, Moher D, et al. Better reporting of interventions: template for intervention description and replication (TIDieR) checklist and guide. *BMJ*. 2014;(348):g1687.
- ⁵The Department of Health. The National Service Framework for Long Term Conditions. 2005.