

# Preventing Work Capacity for Multiple Sclerosis Patients in Austria

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## Abstract

This study explores the challenges faced by multiple sclerosis (MS) patients in Austria in maintaining their work capacity and evaluates the effectiveness of various state and company support measures. MS affects approximately 12,500 individuals in Austria, leading to significant physical, psychological, and cognitive impairments, which often result in early retirement and high indirect costs. Through expert interviews with representatives from health insurance funds, rehabilitation clinics, and self-help organizations, the research identifies critical gaps in state services, particularly in the approval processes for rehabilitation and financial support. Additionally, company measures such as workplace adjustments and flexible working models are evaluated for their potential to prevent work incapacity. The findings highlight the need for less stringent government assistance requirements, expansion of therapy options, and the creation of a central advisory point for MS patients. Moreover, structured workplace adaptations and increased awareness of MS among employers are necessary to help patients maintain their ability to work. This study calls for further research into the effectiveness of these measures, particularly in German-speaking regions.

**Keywords:** Multiple Sclerosis, Work Capacity, Vocational Rehabilitation, Workplace Adaptation, Health Promotion, Disability Prevention, Employment, Rehabilitation Services, Economic Burden, Occupational Therapy, Early Retirement, State support measures.

## Background

In 2014, estimates from Charité placed the total number of people affected by multiple sclerosis (MS) worldwide between 1 and 2.5 million, but by 2020, the German MS Society estimated the number at 2.8 million [1, 2]. The global prevalence is around 36 per 100,000 inhabitants, with a clear north-south gradient. In 2020, Germany reported a prevalence of 303 per 100,000, and Austria had 153 per 100,000 [3]. Austria has approximately 12,500 MS patients, while Germany has up to 240,000 [4, 5]. People with MS often face physical and psychological limitations due to the disease. Since MS primarily affects young, socially active, and working individuals between the ages of 20 and 40, it holds significant socio-medical importance. Over 50% of those affected develop severe disabilities within the first 15 years of the disease, which can lead to loss of workability [6].

Berger et al. compared the burden caused by MS in 16 countries and concluded that a considerable number of MS patients are no longer able to work early in the course of the disease: 11.5%

of patients with mild progression, who mainly report invisible symptoms, receive disability pensions [7]. The symptoms of MS can lead to impairments in vision, sensory disturbances, cognitive limitations, restricted mobility and fine motor skills, and coordination difficulties, as well as fatigue [8-10].

This range of individual disease symptoms highlights the need for different approaches to health promotion by employers and health-care systems. Even minimal support measures from employers or the state can help MS patients manage their challenges in everyday work, enabling them to maintain their ability to work over the long term [11], although this has not been studied in the German-speaking world. Similarly, the importance of vocational rehabilitation [12], workplace adaptation, and preventive measures is viewed controversially by different authors [13]. Multiple sclerosis leads to early retirement in about one-third of patients [14].

The German Society of Neurology estimates that the indirect costs resulting from lost productivity due to sick leave or ear-

ly retirement, as well as informal care provided by relatives, amount to an average annual economic cost of €23,400 per patient in Germany [15]. While Kobelt et al. estimate direct disease costs of around €22,000 per MS patient in Austria [16], the chairman of the Neurology Department of the Vienna Medical Chamber estimates the indirect disease costs at an average of €28,300 per patient annually [17]. On average, the total costs per MS patient in Europe are estimated at €40,303 [18]. It should be noted that costs increase almost exponentially with the degree of disability [19].

### **Vocational Rehabilitation and Workplace Adjustments**

In international literature, state services for vocational rehabilitation are often mentioned. These include the use of a rehabilitation counselor [20] and access to therapy sessions [21]. Company assistance measures, such as providing additional equipment and facilities in the workplace [13], offering flexible working time models, and adjusting job responsibilities, are also widely discussed in this context [22, 23]. All such measures, particularly when applied early, are considered partially supportive [24]. Further research is necessary in this area to identify the effectiveness of vocational rehabilitation [25]. Additionally, most of the study results come from North America and may not be generalizable to other countries due to international differences in healthcare, human services, and workforce development [23, 24].

The effectiveness of workplace adjustments also remains largely unanswered [22, 24]. Practical examples from Australia regarding the increased use of occupational therapists in vocational rehabilitation and from the United Kingdom with specialized nursing professionals ("specialist nurse") have already been studied and discussed as possible preventive intervention models, which could be adapted to MS and implemented in practice [26, 27]. This could alleviate the burden on medical staff and reduce indirect costs, as well as the costs to the healthcare system. However, there is still a need for further research to determine the feasibility of this in German-speaking countries and whether it can help maintain workability.

### **Methodology Study Design**

An exploratory research design was used, as little research has been conducted on preventing work incapacity due to MS or on preventive measures in the workplace for MS patients [28]. In this context, the relationship between state and company support measures are also relevant.

### **Target Group**

Inclusion criteria for selecting possible experts included their work with MS patients who experience limitations in their workday due to the disease, as well as their expertise in the financial and general support available to people with MS in Austria. A total of 43 institutions were identified, including health insurance funds, rehabilitation clinics, university hospitals, professional societies, self-help organizations, chambers, and funds. The inclusion criteria included working with MS patients who had noted work-related limitations due to the disease, as well as knowledge of the financial and general support available to MS patients in Austria. Over the course of the study, 43 institutions were identified, ranging from health insurance companies, rehabilitation clinics, university hospitals, professional societies, and self-help organizations to chambers and funds.

### **Data Collection Instruments**

The data were collected qualitatively using problem-centered interviews. An interview guide was used with the following topics, which were discussed in detail with the interview partners: MS in daily work life, the costs associated with MS, workplace prevention and health promotion, the current status of international research on promoting workability in MS patients, and the assessment of the feasibility of implementing international study recommendations for promoting workability in Austria. The experts provided insights into the actual utilization of support services for protecting the workability of MS patients and discussed possible improvements to the existing systems.

### **Data Collection**

The interviews were conducted voluntarily with informed consent and were carried out by telephone. The experts were interviewed between October 2020 and January 2021, with the average duration of the interviews being 47 minutes. The data were then anonymized.

### **Data Analysis**

The data were analyzed using Mayring's summarizing content analysis [29]. The data were reduced based on pre-defined selection criteria to create an overarching structure. The logic of an inductive analysis was applied. In the next step, the individual coding constructs were paraphrased, with irrelevant and synonymous paraphrases being reduced and turned into statements, resulting in a category system. From this category system, main categories were formed, which followed an inductive logic. The main categories, their definitions, and the coding rules were summarized in a coding guide [30].

### **Results**

#### **Governmental Measures for Maintaining Workability**

##### **Less strict Requirements for Government Assistance**

Often, patients face hurdles when trying to obtain approval for government assistance measures (e.g., rehabilitation, care allowance, job assistance), leading to frequent rejections because "the Pension Insurance Institution is cutting costs to meet quotas, but we don't need such strict requirements for applications" (Regional Self-Help Group A). Regular therapy sessions were seen as having a very positive influence on the course of the disease. As a result, the experts called for less stringent requirements and more approvals for state health measures. Furthermore, it was noted that "rehabilitation for MS must be possible annually, regardless of whether those affected are still employed, and job assistance should not depend on the level of care" (Multiple Sclerosis Society).

##### **Expansion of Financially Supported Therapy Options**

Regular therapy sessions represent a significant financial burden for MS patients, which often becomes unaffordable over time. Therefore, more fully publicly funded MS-specific physical and occupational therapy, as well as neuropsychological services (e.g., psychotherapy covered by health insurance without deductibles), should be promoted. "All state support and measures should be uniform across all regions of Austria, as there are currently significant differences between federal states" (Multiple Sclerosis Association). The experts also agreed that outpatient rehabilitation must be possible, "which can be managed along-

side work and family commitments" (Local Pension Insurance Office A), as multi-week absences are often not feasible.

### Creation of a Central Point of Contact for Advice

Furthermore, increasing collaboration between healthcare providers, employment agencies, and companies could lead to the establishment of a central point of contact for assistance-related questions, ensuring that resources are fully utilized, as "people often don't know who can help them or where they should turn. We need a 'case manager' who can advise them on all these matters. Those affected often don't even know what assistance is available. It's hard to figure all this out on your own" (Local Workers' Chamber A). Joint support services could be provided without bureaucratic hurdles, "instead of leaving patients to navigate the responsibilities of Pension Insurance Institution, health insurance companies, and employment agencies, these entities could jointly implement rehabilitation measures" (Multiple Sclerosis Society).

### Company Measures for Maintaining Workability

#### Provision of Information and Education about MS in Companies

The experts pointed out that companies currently offer few health promotion or workability prevention measures, mainly because employers and colleagues lack knowledge about MS. This gap in knowledge should be addressed by providing more information and education, as flexible working hours, workplace adjustments, and reintegration programs can significantly improve the workability of MS patients.

#### Structured Consideration of Job Tasks for MS Patients

Due to the individualized symptoms of MS, particular attention should be paid to assigning work tasks that match the abilities of the patient. "Physical and mental limitations should be considered, as well as time pressures and physically demanding tasks" (Care Center A). Additionally, "good break management and good work organization could help in structuring work tasks" (Local Workers' Chamber A). It would be helpful to offer more flexibility in workplace design, such as part-time work and home office options.

#### Measures Against Fatigue in The Workplace

After discussing international models, the experts agreed that introducing measures to combat fatigue would increase concentration and productivity while reducing error rates and absences, "but the employer's expectations must remain clearly structured" (Care Center A).

### Discussion

The assistance measures discussed in the literature for maintaining the workability of MS patients were divided by the experts into governmental and company measures. In the interviews, there was consensus that a central advisory center must be established, which would be available to MS patients for all questions – similar to the previously studied use of rehabilitation counselors [20]. This would inform MS patients about existing support measures and ensure the full potential of assistance programs is utilized. In this context, the experts also advocated for simplifying access to assistance and reducing bureaucracy, as this would lower the threshold for many people – especially those who need it the most – to take advantage of support. The importance of access to

therapy units for MS patients was explored as early as 2005 [21]. The experts' views align with previous research findings, as publicly funded MS-specific physical and occupational therapy, as well as neuropsychological services at the federal level, would positively impact the course of the disease and help patients continue working. Moreover, outpatient rehabilitation services should be expanded to increase participation. Regarding company assistance measures, the experts supported the research findings on the need to coordinate work tasks with MS patients [23, 24]. They believe that work tasks must be tailored to the individual symptoms of MS patients to help them manage their workday over the long term. This also includes offering MS patients more flexible working hours, part-time jobs, and home office options, as mentioned by both experts and researchers [22]. Additionally, the literature discusses the provision of additional equipment and facilities in the workplace [13], as well as the effectiveness of workplace adjustments [22, 24]. The experts also recommended introducing measures to combat fatigue in the workplace, as this would enhance concentration and productivity, resulting in fewer errors and absences. In summary, combining existing assistance measures with the suggested optimizations and additions from the experts could lead to a significant reduction in disease-related absences and impairments, ultimately maintaining workability.

### Limitations

Firstly, organizations are not permitted to provide health-specific data due to data protection regulations, so estimates and approximate figures must be used. Secondly, the representativeness of the study cannot be fully determined, as only ten of the 43 selected experts agreed to participate in the study [31, 32].

### Conclusion for Practice

- The optimization proposals derived from the interviews with the experts can serve as recommendations for practice.
- The access requirements for state assistance measures should be simplified, and a central advisory center should be established. Additionally, the range of publicly funded therapy options should be expanded.
- In terms of company measures, particular attention should be paid to providing sufficient information and education about multiple sclerosis (MS) in companies, as well as structured consideration of MS patients' work tasks. Measures against fatigue should also be introduced to ease the workday.
- Experts also supported offering part-time jobs, flexible workplace arrangements, workplace adaptations, and job assistance, as well as introducing exercise programs in companies and state-funded outpatient rehabilitation.

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