## Clinical and anamnestic characteristics in the neurological WMR – the influence of rehabilitation services on the identification of severe restrictions on ability to work

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## **Abstract**

Objective: Influence of the two rehabilitation services (follow-up/medical treatment) on the typical characteristics of severe restrictions of work ability (SRWA), determined by clinical features and patient history, the use of the screening instrument SIMBO-C and the outcome of neurological work-related medical rehabilitation (WMR).

Methods: For the identification of SRWA, the clinical and anamnestic characteristics of 344 rehabilitants were routinely collected in an inpatient neurological rehabilitation center. Characteristics that were significantly associated with SRWA were integrated into a two-step cluster analysis by using SRWA (yes/no) and rehabilitation services as centroids. In relation to the rehabilitation services, correlations were carried out between the clinical and anamnestic determined SRWA and the SIMBO-C (cut-off: 36 points) as well as performance capability (positive/negative).

Results: Four SRWA-related characteristics were not associated with the rehabilitation services: cognitive impairment, requirements of particular job specifications, extrinsic and intrinsic occupational factors and low return to work (RTW) expectations. Two types of SRWA were identified based on six significantly different characteristics of rehabilitation services: medical treatment-SRWA with a high variety of diseases, incapacity to work at admission, time of sick leave > 6 months, negative subjective RTW-prognosis, and unemployment; and follow up-SRWA with strokes, uncertain subjective RTW-prognosis, no significant period of sick leave. With the clinical and anamnestic determined SRWA the SIMBO-C (cut-off of 36 points) showed a low correlation in follow-up (r = 0.386; p<0.001) and a moderate correlation in medical treatment (r = 0.514, p<0.001). By only using SIMBO-C, 37% of the rehabilitants with SRWA, as determined by clinical and anamnestic characteristics, would not have received necessary WMR at follow-up, nor would 33% of the rehabilitants in medical treatment. Regardless of rehabilitation services, 60% of SRWA patients had a negative work performance and capability.

Conclusion: In neurological rehabilitation, we found two types of SRWA based on rehabilitation services which may only partly be identified by SIMBO-C. A qualitative approach remains necessary. WMR is recommended during rehabilitation for both follow-up and medical treatment services.

**Keywords:** severe restrictions of work ability, work-related medical rehabilitation, rehabilitation services (follow-up/medical treatment), neurological rehabilitation, screening

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