

A comparison of clinical anamnestic assessment of extensive work-related problems with the screening instrument SIMBO-C related to the outcome of neurological work-related medical rehabilitation

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Abstract

Objective: Severe restrictions of work ability (SRWA) are a required condition for participating in neurological work-related medical rehabilitation (WMR). The predictive value of determining SRWA based on clinical and anamnestic features (CA-SRWA) was compared to the standardized screening instrument SIMBO-C, which is a screening instrument for identifying patients with extensive work-related problems, in relation to the outcome parameter “work performance and capability at the end of neurological rehabilitation.”

Methods: Clinical and anamnestic characteristics for the identification of SRWA and the SIMBO-C score were routinely taken from 297 rehabilitants at admission to an inpatient neurological rehabilitation clinic. Sensitivity, specificity and correlation were analyzed for the CA-SRWA (yes/no) and for the SIMBO-C score (cut-off: 30 points) in relation to work performance and capability (positive/negative), taking into account subgroups of rehabilitation services (follow-up/medical treatment) and diagnostic groups (stroke/other diagnoses). Additionally, we carried out quantitative and qualitative analyses of negative work performance and capability .

Results: Within the entire cohort, both screenings showed equal sensitivity (85 %), though the CA-SRWA was associated with higher specificity (49 % vs. 29 %), correlation ($r = 0.353$ vs. $r = 0.164$) and predictive validity (AUC = 0.670 vs. AUC = 0.569) related to work performance and capability than SIMBO-C. Within the diagnostic subgroup “stroke” and rehabilitation subgroup “follow-up” CA-SRWA revealed significant correlations ($r = 0.337$ and $r = 0.317$, respectively) and predictive validity (AUC = 0.673 and AUC = 0.655, respectively) related to the outcome parameter. SIMBO-C did not show any significant correlations or predictive validity. However, in the diagnostic subgroup “other diagnoses” and the rehabilitation subgroup “medical treatment”, both screenings exhibited comparable significant correlations and predictive validity.

The manifestations of negative work performance and capability differed significantly between the rehabilitation services ($p = 0.003$), as “follow-up” rehabilitants were more often “incapacitated until further notice” (70 % vs. 40 %) and “medical treatment” rehabilitants were more often “incapable of working” (48 % vs. 21 %). The reasons for negative work performance and capability did not differ significantly in terms of frequency between the rehabilitation services.

Conclusion: We found the use of an extensive individual clinical and anamnestic identification process for identifying neurological rehabilitants with SRWA to be superior to the standardized screening instrument SIMBO-C, especially for the common diagnosis of stroke as well as for patients in follow up treatment.

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