



Implementing the German model of work-related medical rehabilitation:

Did the dose delivered of work-related treatment components increase?

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2. Methods
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Rehabilitation in Germany

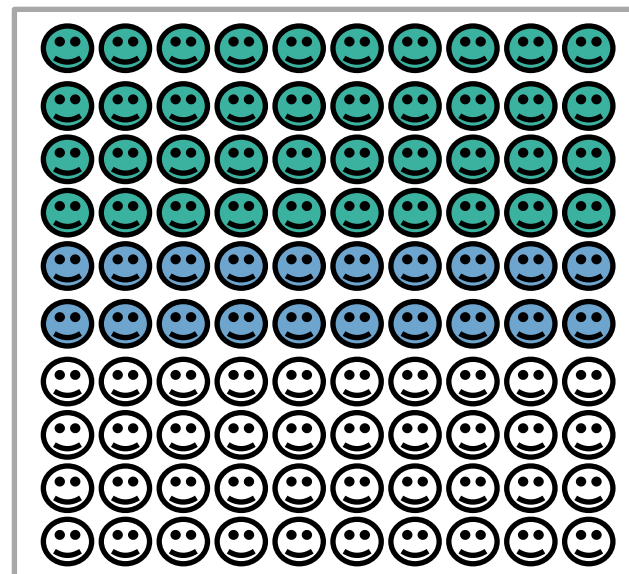
- In working-aged people with chronic health problems provided by the German Pension Insurance
- Prevention of disability pension
- Variety of rehabilitation services; *this session*: a. medical and work-related medical rehabilitation; b. graded return to work; c. vocational retraining (different steps of rehabilitation care)
- Medical rehabilitation: 3-week programs; mainly inpatient; 1 million measures per year; one third due to musculoskeletal disorders
- One RCT: no long-term effect; lower graded evidence from case series: moderate improvements, but poor outcomes in patients with poor work functioning
- *Recent development*: work-related medical rehabilitation

Work-related medical rehabilitation

- Multimodal interdisciplinary approach to reduce health-related discrepancies between work capacity and job demands
- *Who?*
 - Poor self-rated return to work expectation
 - Long-term sickness absence
 - Unemployment
 - Need for job change
 - *Identification:*
Screening (e.g. SIMBO;
next presentation by Marco)
- *What?*
 - Functional capacity evaluation
 - Social counselling
 - Work-related psychological groups
 - Work capacity training

Randomized controlled trials

- Musculoskeletal disorders
(4 studies)
 - Less sickness absence and higher rates of sustainable work participation after 12 months
 - Absolute effect on sustainable work participation after 12 months:
about 20 points (60 % vs 40 %)
- Cardiovascular disorders
(1 study; about 20 points)
- Mental disorders
(2 studies; about 20 points)



Strategy for dissemination

- Guideline
 - Social counselling
(at least 30 minutes; 100%)
 - Psychological work-related groups
(at least 180 minutes; at least 25%)
 - Functional capacity training
(at least 360 minutes; at least 50%)
 - *Total:* at least 9.5 h per measure
- Federal German Pension Insurance:
approval of WMR departments
- *Aim of the study:* How did it work?
Did the treatment dose change?



Methods

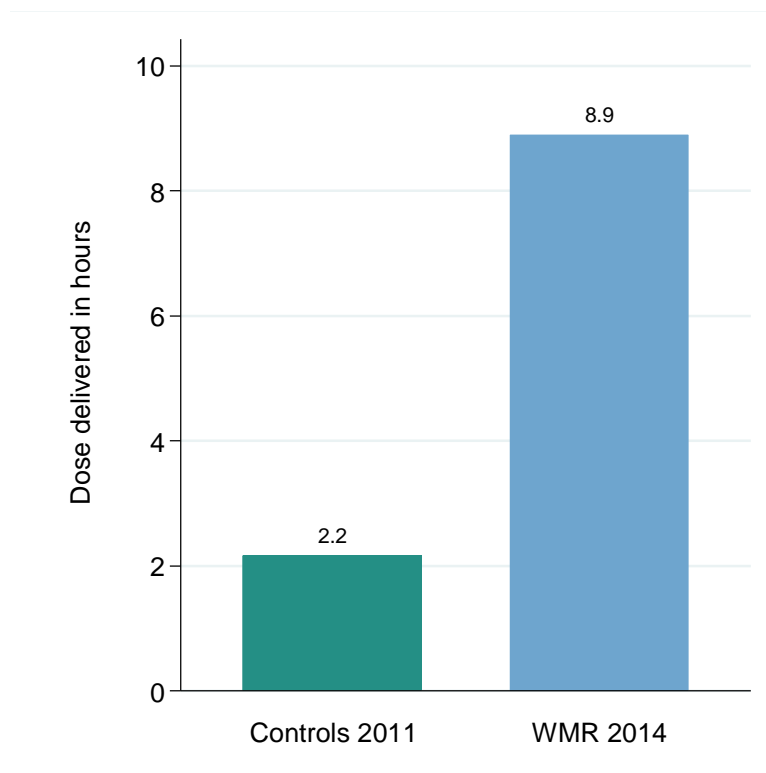
- *Inclusion*: 59 rehabilitation centres covered by the Federal GPI
- *Data*: administrative data on patient characteristics and treatments
- 4,523 patients from WMR departments (2nd term 2014) vs. 4,523 similar patients (2nd term 2011)
- Balanced samples by propensity score matching

Sample characteristics

	WMR 2014	Controls 2011
	n = 4,523	n = 4,523
Sex: female, %	74.1	75.6
Age, mean (SD)	49.6 (9.2)	49.7 (9.0)
Diagnosis: chronic back pain, %	71.9	70.6
Comorbidity: >2 additional diagnosis	61.7	62.0
Sickness absence: ≥ 3 months, %	48.6	49.3

SD = standard deviation; WMR = work-related medical rehabilitation

Work-related treatment dose

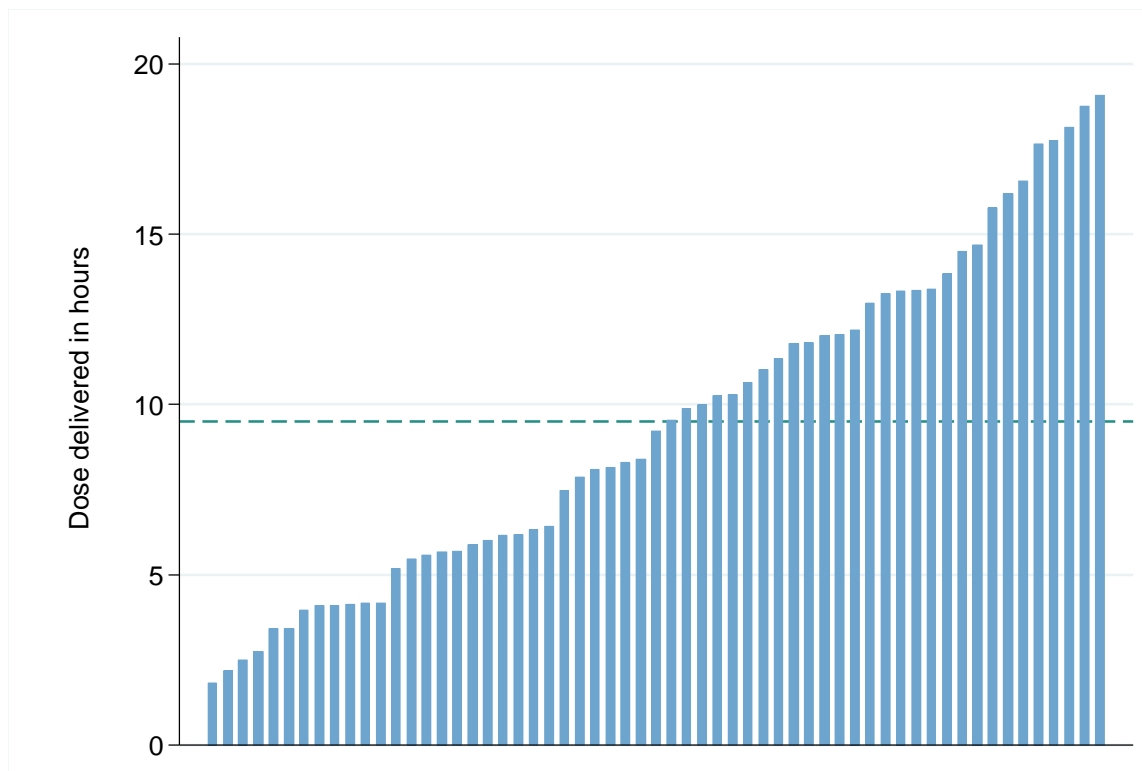


n = 9,046; 59 centres

2011: n = 4,523; 2014: n = 4,523

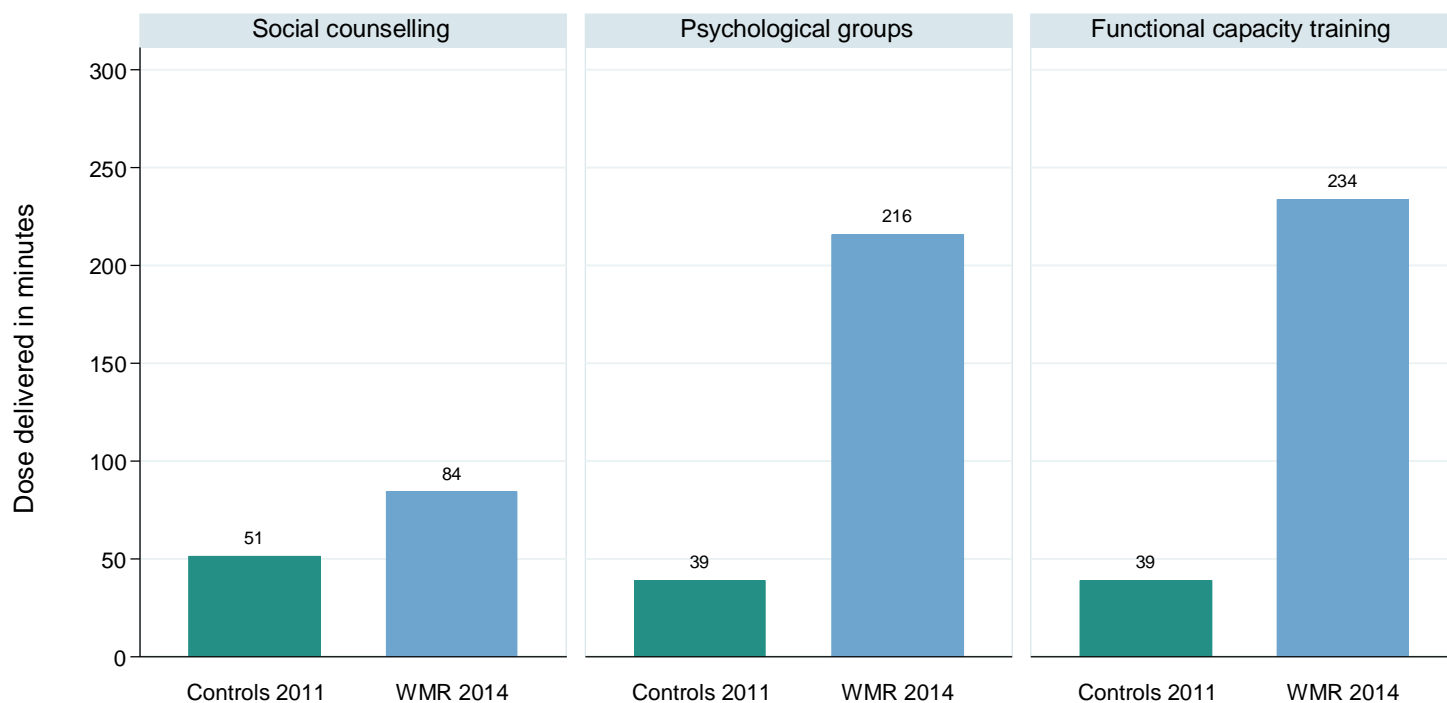
WMR = work-related medical rehabilitation

Dose delivered between centres



n = 4,523; 59 centres in 2014

Implementation of core treatments



n = 9,046; 59 centres; 2011: n = 4,523; 2014: n = 4,523
WMR = work-related medical rehabilitation

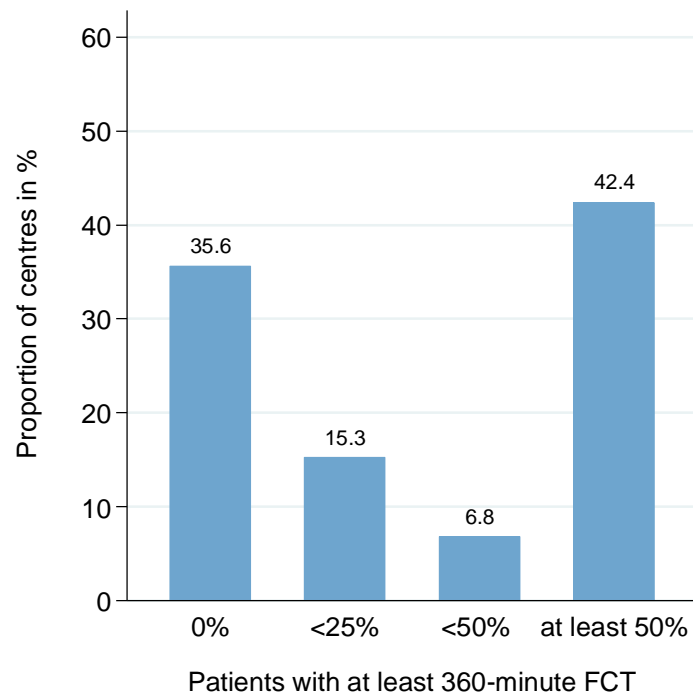


Grade of implementation

<i>Treatment</i>	<i>Guideline</i>	<i>As observed</i>
30-minute social counselling	100%	92.0%
180-minute psychological work-related groups	25%	57.6%
360-minute functional capacity training	50%	32.5%

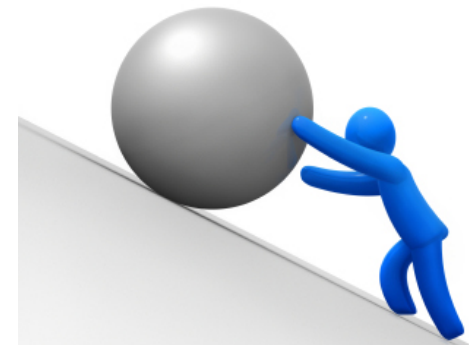
n = 4,523; 59 centres in 2014

Functional capacity training



n = 4,523; 59 centres in 2014
FCT = functional capacity training

- *Challenge:* implementation of functional capacity training



Discussion

- Strong evidence for effects of WMR on work participation outcomes
- Increase of dose delivered; challenge: functional capacity training
- Dose delivered lower than in randomized controlled trials
- Effect in real care lower than the effect known from randomized controlled trials?
- Increase of dose delivered in half of the centres needed



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ORIGINAL ARTICLE

Implementing the German Model of Work-Related Medical Rehabilitation: Did the Delivered Dose of Work-Related Treatment Components Increase?

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Abstract

Objectives: Work-related components are an essential part of rehabilitation programs to support return to work of patients with musculoskeletal disorders. In Germany, a guideline for work-related medical rehabilitation was developed to increase work-related treatment components. In addition, new departments were approved to implement work-related medical rehabilitation programs. The aim of our study was to explore the state of implementation of the guideline's recommendations by describing the change in the delivered dose of work-related treatments.

Design: Nonrandomized controlled trial (cohort study).

Setting: Fifty-nine German rehabilitation centers.

Participants: Patients (N=9046) with musculoskeletal disorders were treated in work-related medical rehabilitation or common medical rehabilitation. Patients were matched one-to-one by propensity scores.

Interventions: Work-related medical rehabilitation in 2014 and medical rehabilitation in 2011.

Main Outcome Measures: Treatment dose of work-related therapies.

Results: The mean dose of work-related therapies increased from 2.2 hours (95% confidence interval [CI], 1.6-2.8) to 8.9 hours (95% CI, 7.7-10.1). The mean dose of social counseling increased from 51 to 84 minutes, the mean dose of psychosocial work-related groups from 39 to 216 minutes, and the mean dose of functional capacity training from 39 to 234 minutes. The intraclass correlation of 0.67 (95% CI, 0.58-0.75) for the total dose of work-related therapies indicated that the variance explained by centers was high.

Conclusions: The delivered dose of work-related components was increased. However, there were discrepancies between the guideline's recommendations and the actual dose delivered in at least half of the centers. It is very likely that this will affect the effectiveness of work-related medical rehabilitation in practice.

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Thank you.