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# The Work Rehabilitation Questionnaire (WORQ) as a part of work related assessment in vocational rehabilitation

# Content

- ▶ Presentation of the WORQ
- ▶ Usability and psychometrics (WORQ)
- ▶ Cross-cultural adaptation into Dutch (WORQ-VL) and first psychometric findings
- ▶ Implementation in VR
- ▶ Case study
- ▶ Conclusion

# 1. Work Rehabilitation Questionnaire (WORQ)

- ▶ ICF-based instrument
  - ▶ functioning domains relevant in VR
  - ▶ Used and understood by professionals and the client!
  - ▶ Independent of health condition
  - ▶ Continuum of the RTW process
- ▶ Comprehensive and fast understanding of work related functioning
- ▶ Interviewer administered vs self-reported
- ▶ Comprehensive vs brief WORQ
- ▶ Two parts





|                                       |                       |                                  |                 |
|---------------------------------------|-----------------------|----------------------------------|-----------------|
| b130 Energy and drive functions       | Brief Core Set for VR | WHS question nr. Q2081           | Question nr. 1  |
| b134 Sleep functions                  | Statistics based      | WHS question nr. Q2080           | Question nr. 2  |
| b144 Memory functions                 | Statistics based      | WHO-DAS 0.2 question nr D1.2     | Question nr. 3  |
| b152 Emotional functions              | Statistics based      | WHS question nr. Q2090           | Question nr. 4  |
| b152 Emotional functions              | Statistics based      | WHS question nr. Q2091           | Question nr. 5  |
| b160 Thought functions                | Statistics based      | ICF text: definition of category | Question nr. 9  |
| b164 Higher-level cognitive functions | Brief Core Set for VR | WHO-DAS 0.2 question nr D1.3     | Question nr. 10 |
| b230 Hearing functions                | Statistics based      | ICF text: definition of category | Question nr. 11 |

Ref: Finger ME, De Bie R, Nowak D, Escorpizo R. Development and testing of an ICF-based questionnaire to evaluate functioning in vocational rehabilitation: The Work Rehabilitation Questionnaire. Handbook of vocational rehabilitation and disability evaluation. 2015. Springer International Publishing Switzerland.

2 ... sleeping, such as falling asleep, waking up frequently during the night or waking up too early in the morning?    **No problem**    0     1     2     3     4     5     6     7     8     9     10     **Complete problem**

## 2. Usability and psychometrics of the WORQ

- ▶ Three studies on psychometric properties
- ▶ VR setting (Finger et al. 2014; Finger et al, 2015)
  - ▶ High test-retest reliability
  - ▶ Good internal consistency
  - ▶ Validity:
    - Content validity: based on ICF core set VR
    - Face validity: + comprehensive instrument functioning
      - few environmental and personal factors
    - Criterion validity:
      - Partially related to perception of general health and quality of life
      - Highest correlation with depression
  - ▶ Usability:
    - Clients: highly appreciated
    - Professionals: average time (26 minutes) obstacle => need of SR version

- ▶ SCI patients, Switzerland (early post-acute phase; Portmann et al, 2014)
  - ▶ Good content validity, although factors missing
  - ▶ Further studies needed
- ▶ VR setting Switzerland, musculoskeletal injuries (Finger et al, 2018)
  - ▶ Excellent internal consistency
  - ▶ High test-retest reliability
  - ▶ Good usability
  - ▶ No significant association with RTW expectancies



# Availability in different languages

- ▶ English
- ▶ German
- ▶ French
- ▶ Russian
- ▶ Taiwanese
- ▶ Brazilian
- ▶ Japanese
- ▶ Dutch

<https://myworq.com>

# 3. WORQ-VL

- ▶ Cross-cultural adaption into Dutch (WORQ-VL)
  - ▶ Guidelines of cross-cultural adaptation of self-report measures (Beaton et al,)
  - ▶ Self-reported version of the WORQ
  - ▶ Adjustments for part 1
  
- ▶ First psychometric findings WORQ-VL: three studies
  
- ▶ Study 1: Patients hand and wrist rehabilitation and multidisciplinary pain center (Vermeulen et al, 2018)
  - User-friendly
  - Good test-retest reliability
  - Excellent internal consistency
  - “preliminary” factors based on exploratory factor analysis: 7 factors
  - best evidence for physical subscale

- ▶ Study 2: Patients with SSC
  - ▶ Differentiate between people working and not working, not between subtypes of SSC
  
- ▶ Study 3: Ongoing study: longitudinal study\* (start of VR, end of VR, 1 year follow-up)
  - ▶ Pre-post intervention
  - ▶ Association with participation measures
  - ▶ Predictive value of the WORQ for work participation
  - ▶ WORQ results to complete ICF-based functioning profile of the rehabilitant
  
- ▶ Development of the WORQ-NL (the Netherlands) based on the WORQ-VL
  - ▶ Mainly changes in part 1 (dr. E. Roels, UCMG Groningen)

\* Study supported by the 'Centre of knowledge on work incapacity' of the National Institute for Health and Disability Insurance (NIHDI) Belgium.

# 4. Implementation in VR\*: the Rehabilitation Center Gent (VR units)



## ▶ Prior to VR:

- ▶ assessment of needs, estimation of “distance to labour market” (“lived experience”)

## ▶ Orientation phase:

- ▶ assessment of functioning at start of VR
- ▶ Complementary to other assessment instruments
- ▶ Objectives VR

\* Study supported by the ‘Centre of knowledge on work incapacity’ of the National Institute for Health and Disability Insurance (NIHDI) Belgium.



## ▶ Advice

- ▶ Source of advice to propose a RTW plan
- ▶ Work supportive measures needed?
- ▶ Frequency of follow-up

## ▶ Follow-up

- ▶ Course of return to work trajectories
- ▶ Checklist
- ▶ Post-intervention image



# 4. Implementation in VR: Use of the WORQ in Iceland

The client has first to answer some questions on My Pages

The screenshot displays the WORQ assessment interface. At the top, there are five tabs labeled "Skref 1" through "Skref 5", with "Skref 2" highlighted in green. Below the tabs, the first section is titled "Overall in the past week, to what extent did you have problems with...". It contains ten rows of questions, each with a scale from 0 to 10 represented by radio buttons. The second section is also titled "Overall in the past week, to what extent did you have problems with..." and contains five rows of questions with the same 0-10 scale. A red "99+" icon is visible in the bottom right corner of the second section's scale.

## 5. Case study

- ▶ Male patient with Guillain-Barré syndrome (GBS), age 40 years
- ▶ Global functioning: independent for daily care, walking without walking aid
- ▶ Start of VR program: +/- 3 months after onset disease
- ▶ Both physically as mentally demanding job

|  |     |    |
|--|-----|----|
| not feeling rested and refreshed during the day        | 6   | 3  |
| lifting and carrying objects up to 5 kg                | 5   | 0  |
| lifting and carrying objects more than 5 kg            | 7   | 1  |
| fine hand use  | 2   | 0  |
| walking a short distance                               | 2   | 0  |
| walking a long distance                                | 6   | 0  |
| moving around including crawling, climbing and running | 8   | 0  |
|  |     |    |
| Total score WORQ VL                                    | 119 | 38 |

# Same diagnosis, different functioning...

- ▶ Two persons with GBS at the start of the VR program
- ▶ Different emphasis within VR; “tailored program”



|  | Person A | Person B |
|--|----------|----------|
| not feeling rested and refreshed during the day        | 6        | 3        |
| sleeping   | 0        | 5        |
| remembering to do important things                     | 7        | 2        |
| being irritable  | 8        | 3        |
| temper   | 6        | 2        |
| self-confidence  | 5        | 1        |
| keeping your balance                                   | 5        | 1        |
| bodily aches or pains                                  | 2        | 3        |
| general endurance                                      | 7        | 3        |
| muscle strength  | 7        | 3        |
| handling stress, crises or conflict                    | 6        | 2        |
| lifting and carrying objects up to 5 kg                | 5        | 2        |
| lifting and carrying objects more than 5 kg            | 7        | 3        |
| walking a long distance                                | 6        | 1        |
| moving around including crawling, climbing and running | 8        | 5        |
| looking after health                                   | 7        | 2        |
| Total score WORQ VL                                    | 119      | 63       |



# 6. Conclusion

- ▶ Assessment and documentation of functioning (ICF-based) throughout the RTW process
- ▶ Studies on psychometrics: reliable, valid and usable instrument in VR
- ▶ First psychometric results WORQ- VL are positive
- ▶ Value WORQ:
  - ▶ meaningful part of assessment within vocational rehabilitation
  - ▶ Comparison of functioning across VR settings
  - ▶ ...
- ▶ Future research is needed
  - ▶ Different populations
  - ▶ (e.g. WORQ and SCI)
- ▶ Let's WORQ 😊 ...

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