Development of a new questionnaire to assess mental workload in the return to work process.

Valérie Tremblay-Boudreault, PT, M.Sc.
Marie-José Durand, OT, Ph.D.
Marc Corbière, Ph.D.
Center for Action in Work Disability Prevention and Rehabilitation (CAPRIT)

March 19th 2012

Origins of this project

Challenges as a clinician
- Progression of work activities
- Related to long term sick leave
- Obstacle to return to work
- Successful return to work if progressive workload

Desire to assess mental workload
- Limits of actual tools

Need for a better tool

Common mental disorder

Health Situation
- Good health
- Mental health problems
- Common mental disorder
- Severe mental disorders

Work Situation
- Productivity
- Presenteeism
- Absenteeism
- Return to work
- Unemployment
- Work (re)integration

INTRODUCTION

Work rehabilitation in Québec (Canada)

1 Durand et al. [1998]; 2 Durand et al. [2011]; 3 van Oostrom et al. [2009]; 4 St-Arnaud et al. [2006]; 5 Tremblay-Boudreault et al. [2011]

OBJECTIVE

How to measure mental workload in the return to work process?
Proposition of an operational definition.

INTRODUCTION

An example of return to work

Healthy worker
- Sick leave
- Return to previous occupation
- Therapeutic exposition in a natural work setting
- Preparation to return to work (in a clinic)
- Rest and Conventional therapy

INTRODUCTION

Common mental disorder
Steps of tool development

- Items writing
  - Based on the concept analysis results
- Items revision by experts
  - Two-round Delphi consultation (relevance and clarity)
- 9-level Likert scale

Cotation by experts

Legend: 1 = not at all relevant  9 = totally relevant

- Based on median scores (relevance or clarity level)

RESULT:

Step 1: Writing the items

- Effort (15 items)
- Cognitive and emotive effects (29 items)
- Other items (9 items)

Step 2: Revising the items

- Experts panel (N=16):
  - Ergonomists (n=3)
  - Neuropsychologists (n=3)
  - Psychiatrists (n=2)
  - Occup. therapists (n=3)
  - Researchers (n=3)
Step 2: Revising the items

- Experts characteristics

Sex: 75% female, 25% male

Age: Median (25th percentile, 75th percentile)
39 years old [36, 46]

Experience (work rehabilitation / common mental disorders):
Median (25th percentile, 75th percentile)
7 years old [3, 12]

Types of work practice:
Public: 25%
Private: 63%
Both: 12%

---

RESULTS

Step 2: Revising the items

Starting with 53 items at round 1

Positive MWL
- Effects: 29 items
- Effort: 15 items
- Others: 9 items

Ending with 62 items after round 2

Relevance: median ≥ 8
Clarity: median ≥ 7*

* Except 1 item (median = 6)

---

RESULTS

Step 2: Revising the items

Effects
Effort
Others

---

DISCUSSION

Measurement of MWL

- First attempt to discriminate between underload, comfortable load and overload
- There is overlapping between the sub-concepts
- Little is known about comfortable or positive MWL
- Related to the concept “Flow” (positive psychology)

Next step: empirical validation studies to confirm the structure of the MWL in the perspective of “work consequence”

---

CONCLUSION

Take-home messages

- A new questionnaire of MWL was developed to meet the needs of the work rehabilitation practitioners. It is now ready for empirical validation studies.
- Further research is needed to fully discriminate between underload, comfortable load and overload, including a better understanding of “positive” or “comfortable” load.

---

ACKNOWLEDGMENTS

Chaire de recherche en réadaptation au travail
Fondation J. Armand Bombardier et Pratt & Whitney Canada