



# How competent are OT's in working according to a bio-psycho-social model?

Dominique Van de Velde – Ank Eijkelkamp – Wim Peersman - Patricia De Vriendt  
CAPATOWN WFOT – May 2018

# Introduction

- Paradigm-shift: from a **biomedical** towards a **bio-psycho-social** conception of disability and illness (Wade and Halligan, 2004).



Wade DT, Halligan P. New wine in old bottles: the WHO ICF as an explanatory model of human behaviour. *Clinical Rehabilitation* 2003 Jul;17(4):349-54.



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- This led to a **change in contemporary healthcare:**



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# Introduction

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- This led to a **change in contemporary rehabilitation**:
  - Client-centered practice, inclusion, coaching, self-management, participation,... became more important in clinical practice,

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# Research Gap

- It is not clear whether OT's do show the **necessary skills and competences** to act according to the BPS paradigm.

# Research Objectives

- To develop a valid and reliable scale
  - monitoring the BPS competences of the healthcare professionals, including the OT.



# Method

- 3 steps

## Step 1: item derivation

- Focusgroups with patients and professionals
- Literature review





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Funded research project from VLAIO.

A. Spooren, M. Westhovens,  
L Vanderborcht.



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## Step 2: Development of a scale

- factor analysis in different samples
- Internal consistency

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### **Step 3: Reliability and Clinical Applicability**

- Test-retest
- Feasibility
- Interpretability

# Results – Step 1

- 7 Focusgroups
  - 12 patients
  - 45 professionals
- **45 BPS items**

For instance:

**It is advised to invite the patient to the team meeting.**

- **Check with the literature:** all items were also described in literature as important BPS features
- These were sent out in a **survey in Flanders; sample of 505.**
- **Results: descriptives.**



# Results – Step 2

- All items were rephrased into statements
  - For instance:
    - **Considering your last client: was he invited to the team meetings.**
- **Scale of 45 statements**
  - Likert scale: 1 I totally disagree to 5 I totally agree.

# Results – Step 2

- **Exploratory factor analysis –**
  - **Sample: Professionals from 1 rehabilitation center in Flanders: n=376**
  - (max likelihood – oblique rotation)
  - Kaiser-Mayer Olkin 0,82; Bartlett's  $\chi^2$  856,2 ( $p < 0,01$ )
- 5 factors (subscales) explaining 70% of the total variance
  - **Subscale 1: Networking**
  - **Subscale 2: Using the expertise of the client**
  - **Subscale 3: Assessment and reporting**
  - **Subscale 4: Professional knowledge and skills**
  - **Subscale 5: Using the environment**
- 11 items were deleted

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- **Confirmatory factor analysis –**
  - **Sample: Professionals working with Persons with Dementia n=413**
  - (max likelihood – oblique rotation)
  - Kaiser-Mayer Olkin 0,76; Bartlett's  $\chi^2$  943,2 ( $p < 0,01$ )
- **Confirmation of the 5 factors structure**
  - **Subscale 1: Networking**
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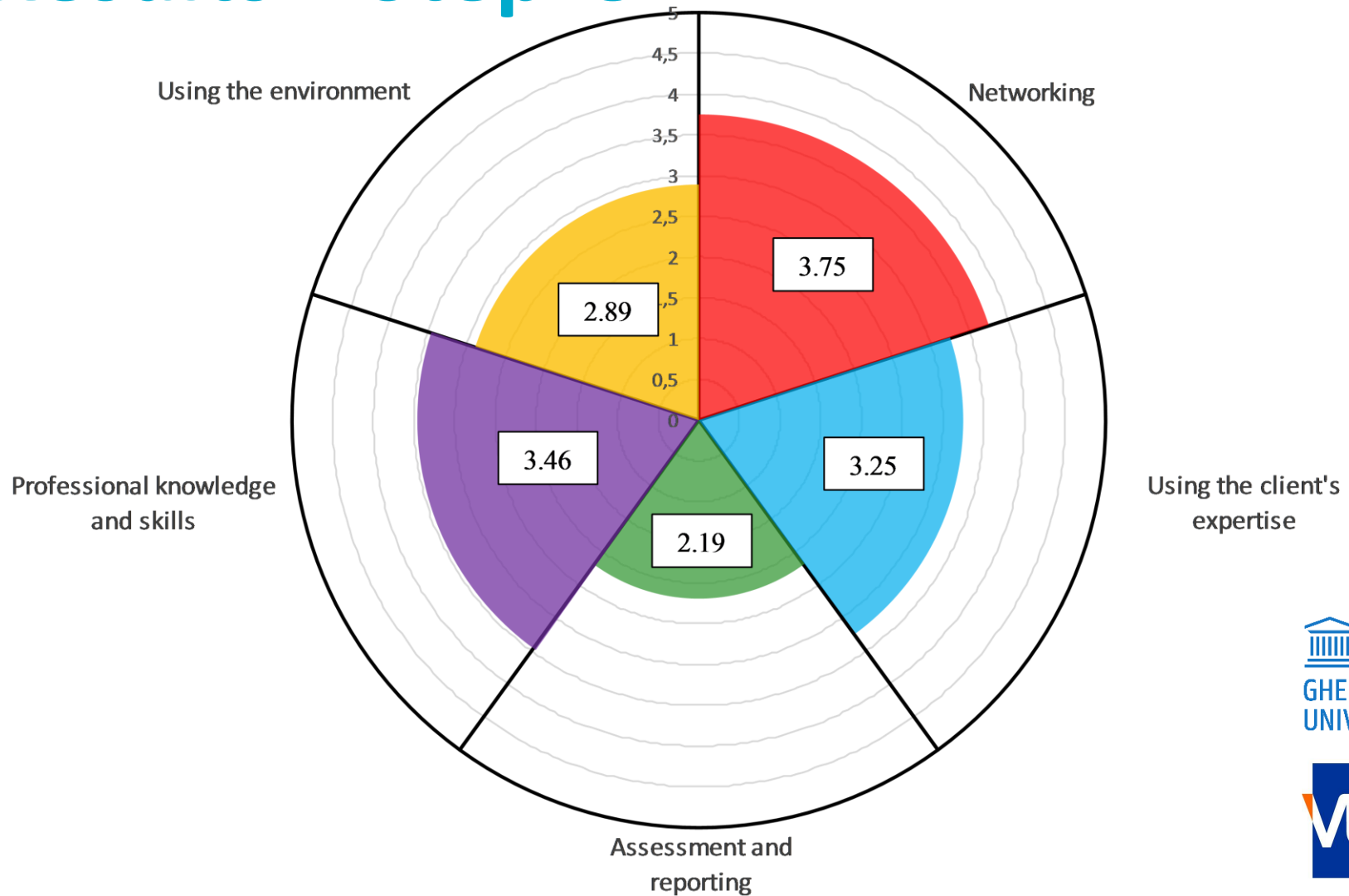
# Results – Step 2

- Final result of this step:
  - **A BPS scale of 34 items**
  - **Divided in 5 subscales**
  - **Strong Internal Consistency** of the subscales ranging from 0,75 – 0,82

# Results – Step 3

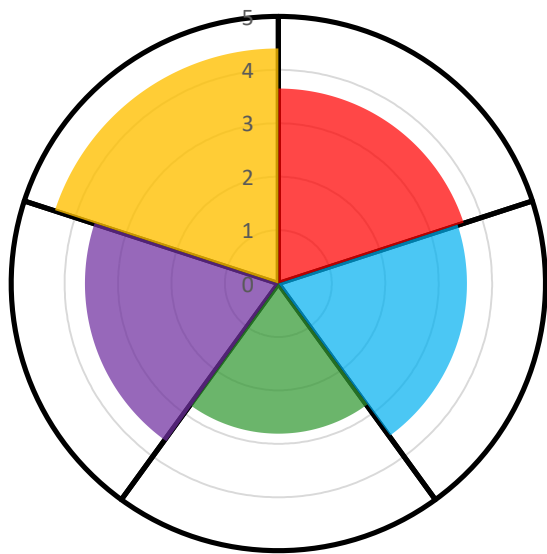
- **Sample: n=204**
- **Test – retest reliability:**
  - ICC: ranged from 0,82 to 0,93
- **Feasibility:**
  - Mean Administration time: 12 minutes.
- **Interpretability:**
  - Scores per subscale on a scale to 5
  - Polar pie

# Results – Step 3

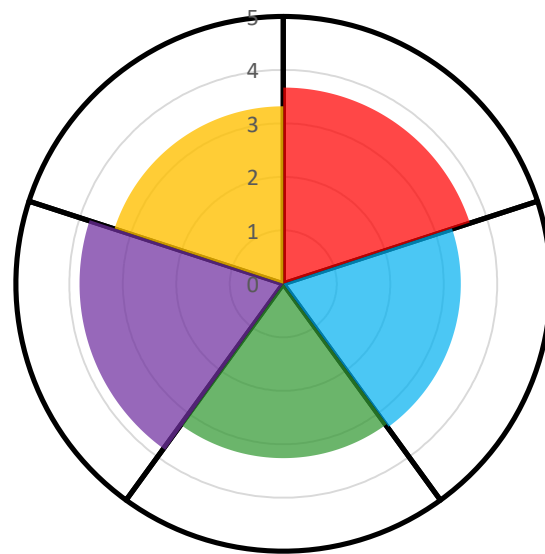




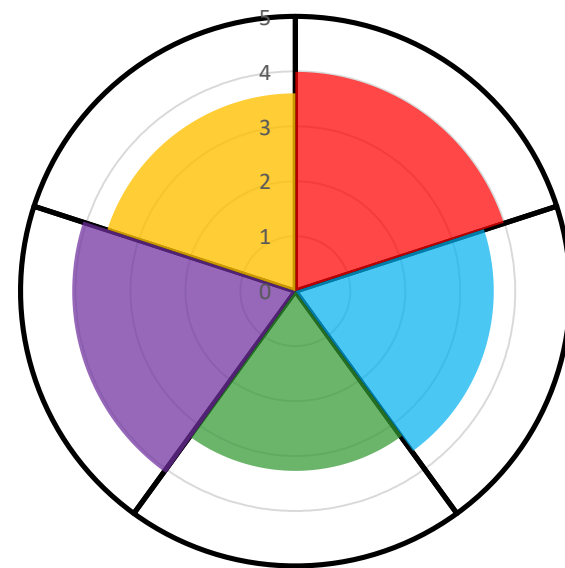
# Results from the sample in Dementia Care



Social workers: 3.23

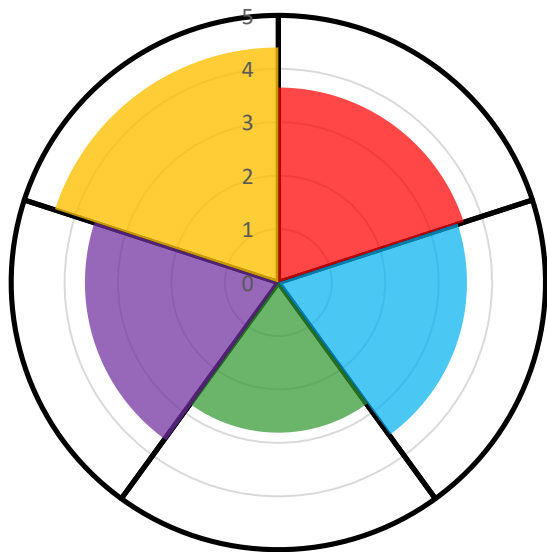


Nurses; 2.67

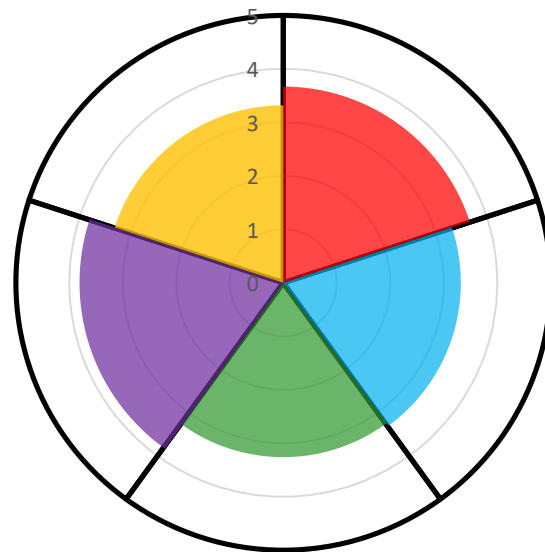


OT's: 3.64

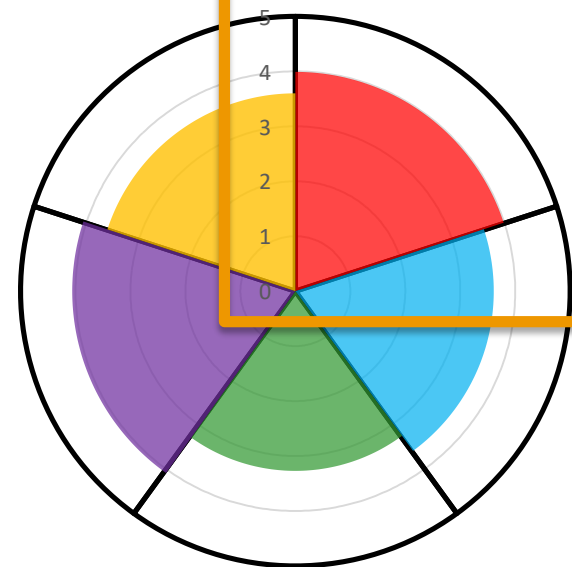
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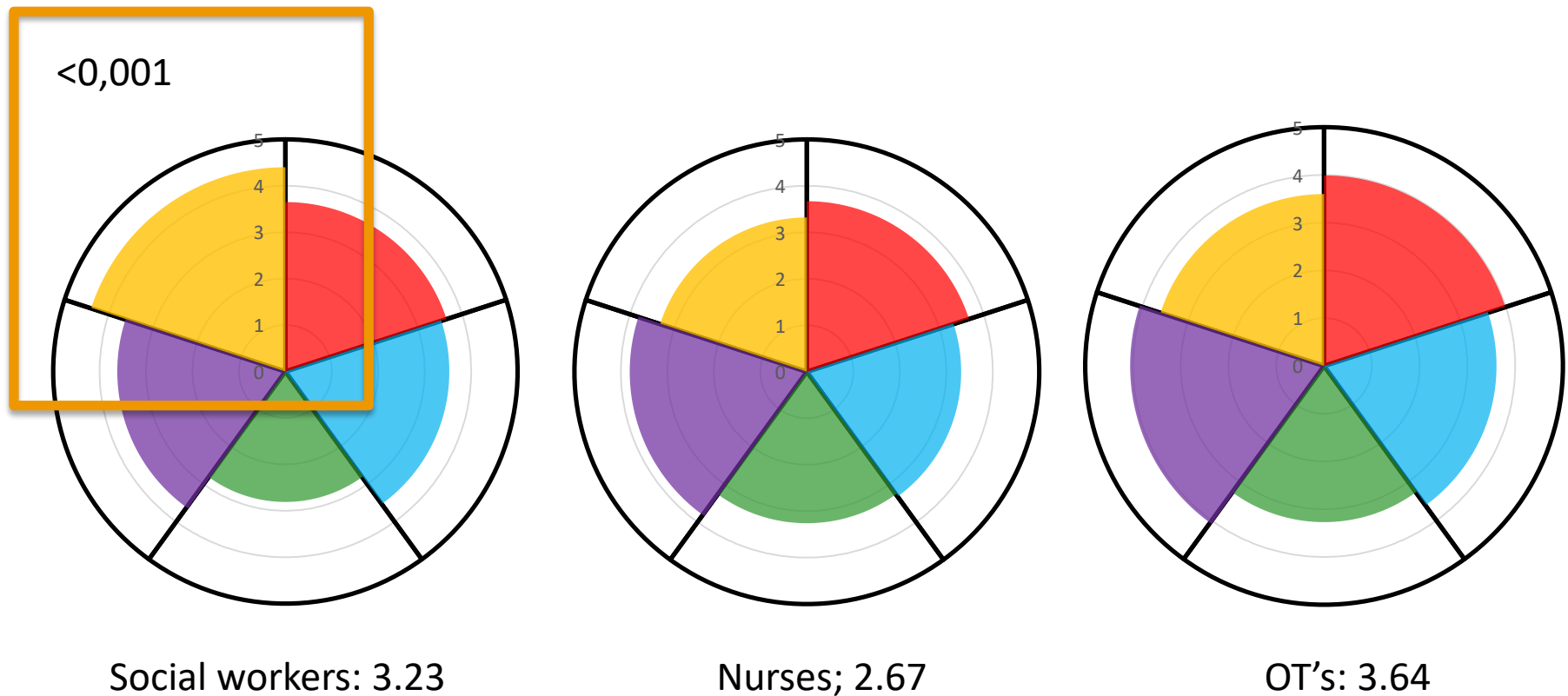


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# But, most important result

- When the OT start his clinical reasoning process about the daily activities of the person....



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- When the OT start his clinical reasoning process about the daily activities of the person....

his level of  
Bio-Psycho-Social reasoning in  
ALL 5 subscales increases significantly!



# Conclusion and discussion

- **Valid and reliable scale**
- Easy to **use**
- Easy to **interpret**
- This scale offers opportunities to
  - **Monitor** the BPS competences
    - for individual health care professionals
    - For groups (for instance rehab centers)
  - **Enhance the quality of the clinical practice**
  - **OT's are doing fine, but can learn from other healthcare professionals!**
  - **And OT's should start reasoning from 'the client's occupations'.**

RESEARCH ARTICLE

# Quality in dementia care: A cross sectional study on the Bio-Psycho-Social competencies of health care professionals

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RESEARCH ARTICLE

# How Competent Are Healthcare Professionals in Working According to a Bio-Psycho-Social Model in Healthcare? The Current Status and Validation of a Scale

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11(10): e0164018. doi:10.1371/journal.

The scale is free for use and is added in this article.





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