

# Exploring patient perspectives for being active or sedentary during inpatient stroke rehabilitation: a qualitative interview study

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## Background

Targeting PA (physical activity) and SB (sedentary behaviour) during inpatient stroke rehabilitation is complex.

- Therefore, an in-depth insight in factors influencing physical behaviour is needed.<sup>1-3</sup>
- The Behaviour Change Wheel (BCW) provides a theory-based method to design behaviour change interventions.
- The COM-B is central in BCW: Capability, Opportunity and Motivation are essential for behaviour change.<sup>1</sup>

## Objectives

To explore factors influencing PA and SB during inpatient stroke rehabilitation using the COM-B model.

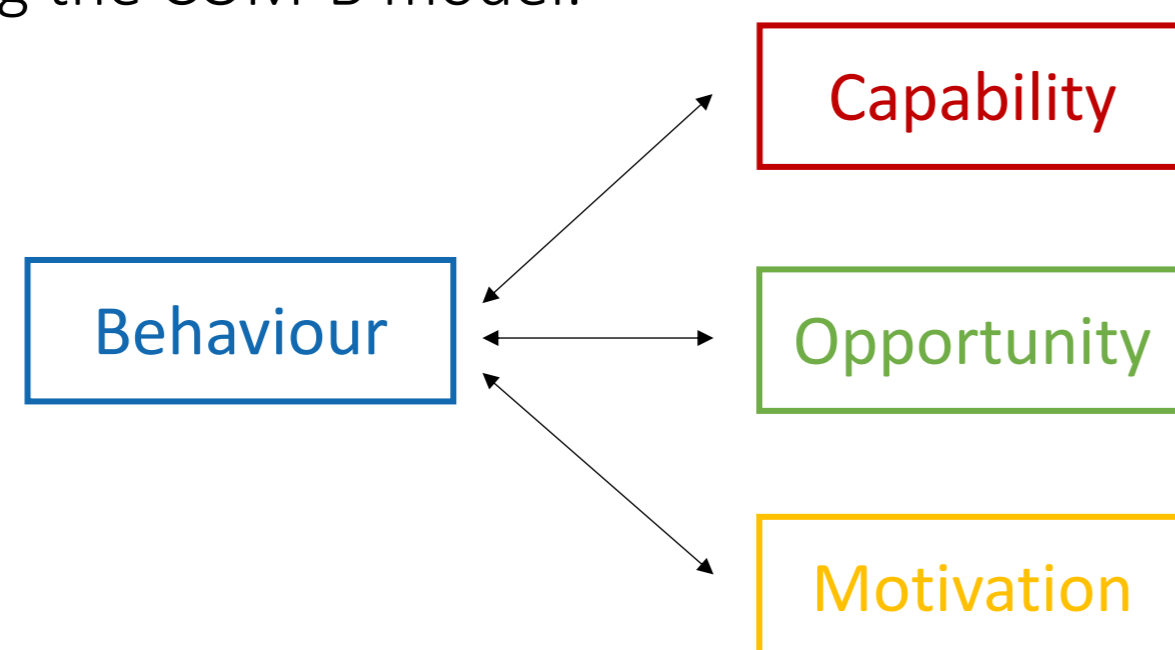


Fig 1. COM-B model

## Results

### Demographic characteristics of the 17 participants

- Gender: 94% male; age (median): 63.5 years (IQR=53.5-72.5)
- (Partial) use of aid: 24% walking aid; 29% wheelchair
- Stroke: 82% ischemic; 71% left

### Selection of relevant themes derived from the interviews describing factors influencing PA and SB

These results are a compilation of some of the most common factors described in research on health-promoting physical behaviour, based on the COM-B model (e.g. DPAQ Questionnaire)<sup>5</sup>

#### Capability (physical<sup>a</sup> & psychological<sup>b</sup>)

<sup>a</sup>**Skills** serve as crucial motivators for engaging in PA. Motivators are significantly enhanced by natural recovery, regained ability, and their importance in activities of daily living (ADL) and participation.

<sup>b</sup>**Knowledge** about health consequences of physical (in)activity and being aware of accessible resources, such as free access to cycle ergometer, or outdoor walking routes, are important enablers.



<sup>b</sup> "In relation to the infarct, of course, you still have to work on your health. ...It has a lot of impact."

#### Opportunity (social<sup>c</sup> & physical<sup>d</sup>)

<sup>c</sup>**Social support** from care providers in tailored training to address individual needs, advice on rest, instructions on self-exercising and information on options stimulates and regains confidence and is highly appreciated.

<sup>d</sup>**Physical opportunity** such as the availability of facilities and walking aids, therapy schedules, room layout and weather conditions can promote PA. However, how individuals perceive and respond to these factors is highly personal.



<sup>d</sup> "I go to the restaurant to get a drink."  
<sup>d</sup> "Where should I go in the evening? I won't be happy sitting downstairs."

#### Motivation (automatic<sup>e</sup> & reflective<sup>f</sup>)

<sup>e</sup>**Emotion** is often linked to the realisation that the current and desired situation do not match, or come closer together. Grief can hinder, but also encourage exercising.

<sup>f</sup>**Beliefs about capabilities:** Making progression and support from care providers enhances self-confidence.

<sup>f</sup>**Beliefs about consequences:** Knowing what it takes to enhance skills and health outcomes helps to balance PA and rest.



<sup>e</sup> "to be physical active... makes you better and happier. ...but in the beginning, then you have grief and then it's completely different, but you have to get it back"

## Methods

### Design & Patients

Qualitative interview study among patients:

- Admitted for inpatient rehabilitation treatment in Basalt
- Able to move safely (independent, assisted or supervised)
- Able to be interviewed (proficient Dutch language)
- Not having aphasia or severe cognitive problems
- Made no use of an electric wheelchair

### Semi-structured interviews

Interviews were performed by two trained researchers, based on PA patterns measured the previous day (7.00 – 22.00) with:

- Accelerometry (Activ 8, and if applicable a wheelchair sensor)
- Behaviour mapping observations (every 20 minutes)

Interview topics included:

- Perspectives of facilitators and barriers on PA and SB in terms of Capabilities, Opportunities, and Motivation

### Qualitative data analysis

Steps taken based on the framework method<sup>4</sup>

- Transcription
- Familiarisation with the data
- Analytical Framework & coding
- Complementing Analytical Framework & further coding
- Charting data into summarized data
- Interpreting the data

## Discussion and Conclusion

Factors influencing PA and SB are diverse. Insight in Capability, Opportunity and Motivation supports understanding (differences in) physical behaviour, and provides leads for targeted interventions.

## Clinical message

Thorough assessment of COM-B factors during anamnesis, identifying factors influencing PA and SB is important for tailoring interventions to meet the specific needs of patients.

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