

# Exploring motivation in (subacute) upperlimb rehabilitation among patients with Cervical Spinal Cord Injury: a qualitative study towards enhanced functional recovery

Eva Delooz<sup>1</sup>, Nele Bertels<sup>1</sup>, Alexandra Van der Vennet<sup>1</sup>, Annemie Spooren<sup>1</sup>

<sup>1</sup> Hasselt University, Rehabilitation Research Center REVAL, Diepenbeek, Belgium

**Introduction:** A cervical spinal cord injury (C-SCI) significantly impacts self-care and daily activities due to impaired hand function. While therapy dosages and training content are essential, motivation is a critical yet under-explored factor in enhancing motor learning and recovery.

**Method:** A phenomenological-hermeneutical qualitative research design, recruiting 10 people with C-SCI from rehabilitation centres in Belgium (n=2) and the Netherlands (n=1) within the subacute phase (4 weeks after injury). Semi-structured interviews were conducted using an interview guide.

**Results:** Motivation was experienced as a process influenced by 3 key aspects.

## Question?

What are the experiences of individuals with a cervical spinal cord injury regarding motivation for arm-hand training during the subacute rehabilitation phase?

Sex	Age (median)	Lesion level	AIS
7 male 3 female	55 (21-79)	C1-C6	B-D

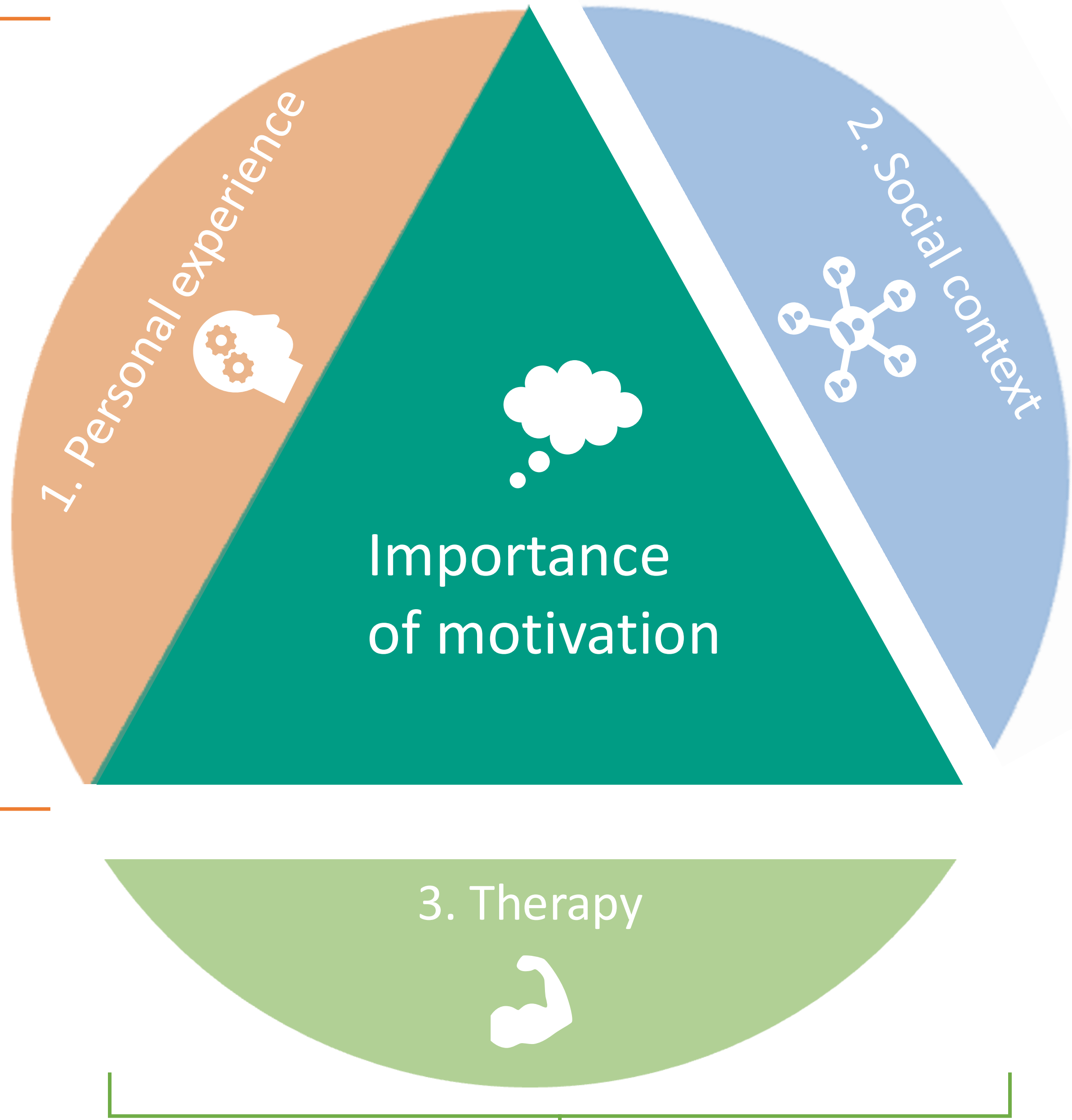
### Importance of motivation

- Motivated individuals progress more
- Step-by-step process
- Varies among individuals

“That is the 10 for me. So be 100% motivated, otherwise you really won't get there.” – C-SCI 1

### 1. Personal Experience

- Progress boosted motivation
- Setbacks reduced motivation
  - Improvements encouraged patients, even if progress slowed
  - Setbacks initially caused hopelessness but later provided strength
- Goal-setting was highly motivating, both general and specific, short- and long-term



“I still try to set the bar high for myself, about the goal. Always being able to do something more.” – C-SCI 4

### 2. Social context

- Rehabilitation team
  - Builds strong relationships
  - Understands patients
  - Explains usefulness of exercises
  - Provides feedback
- Fellow patients
  - Offer mutual support
  - Share experiences
- Personal network
  - Shows support
  - Maintains a positive attitude
  - Their motivation influences the patient

“It is support and also, they always come to visit so unexpectedly and that gives the you feeling that they have not forgotten you.” – C-SCI 3

### 3. Therapy

- Understanding the usefulness of exercises enhances motivation
- Incorporating variety that matches personal interests boosts motivation
- Many with C-SCI prefer:
  - Heavier exercises
  - Less rest between sessions

“Yes, basically I don't care what I have to do. If only, if only you can convince me that there is a point in me doing it. Because if I don't see the point of it, then my motivation to do it is also low.” – C-SCI 1

## Answer

Motivation is mainly internal, shaped by personal experiences and, to a lesser extent, social context. Social context include the rehabilitation team, fellow patients, and personal networks. Additionally, therapy content, dosage, and intensity in arm-hand training can additional impact motivation.

## Recommendations:

1. Build a strong therapeutic relationship to facilitate open communication and understanding, making it easier to assess the patient's challenge level.
2. Ensure patients understand the reasons behind their exercises by clearly explaining their importance.
3. Focus on the three motivational elements for arm-hand training.