



A good life after stroke – The contribution of the physical environment

Chairs

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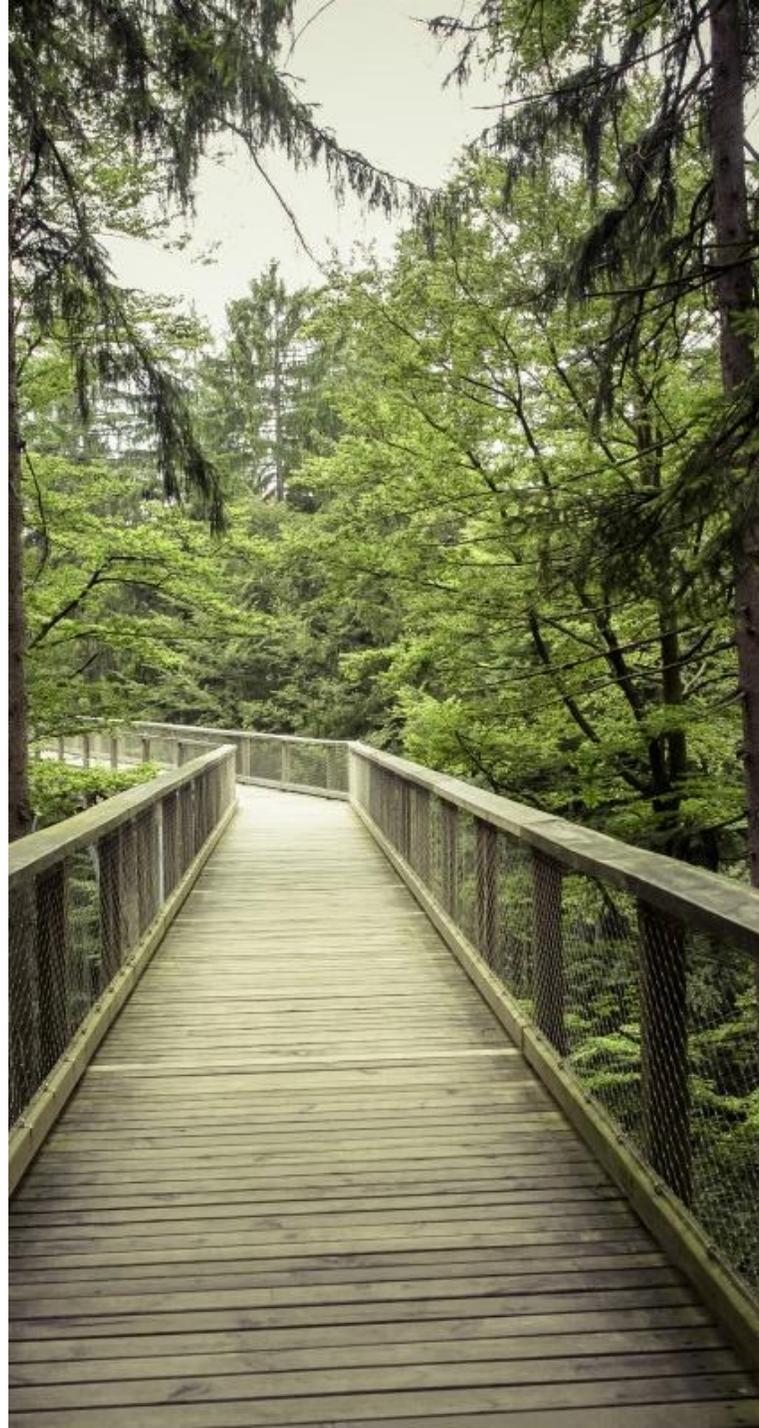
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**The authors of associated projects
declare no conflicts of interest**



Plenary outline



- Why environment matters in stroke rehabilitation
- Emerging evidence from our research
- Place mapping method
- Discussion between Grethe and Tony
- Summary and input from the audience

Environment as an unmet need after stroke

A life saved is a life worth living

The unmet needs of stroke survivors in Europe:

A scoping review of the literature on life after stroke

European Life After Stroke Forum on 10 March 2023, Barcelona

A European scoping review on unmet needs after stroke highlights that:

Environmental factors are **frequently overlooked**

Many stroke survivors experience unmet needs related to the built environment:

- Accessibility
- Home adaptations
- Transportation
- Participation in the community
- Supportive living environments

Environment remains an under-recognised and under-addressed area in stroke care.

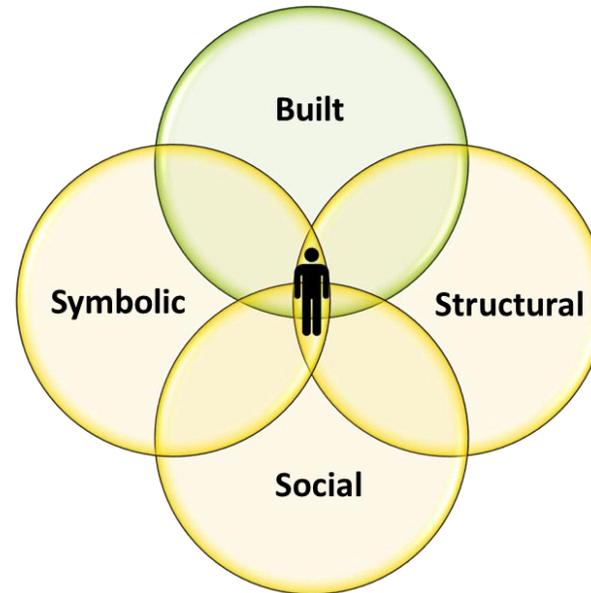
Legg & Stevens, 2023



Self-management support.



Enhancing quality of life for persons with stroke recovery at home.



Built environments to support rehabilitation for people with stroke from the hospital to the home.



Rehabilitation at home with the development of a sustainable model placing the person's needs and environment at heart.

Collaborators and funding



FORMAS

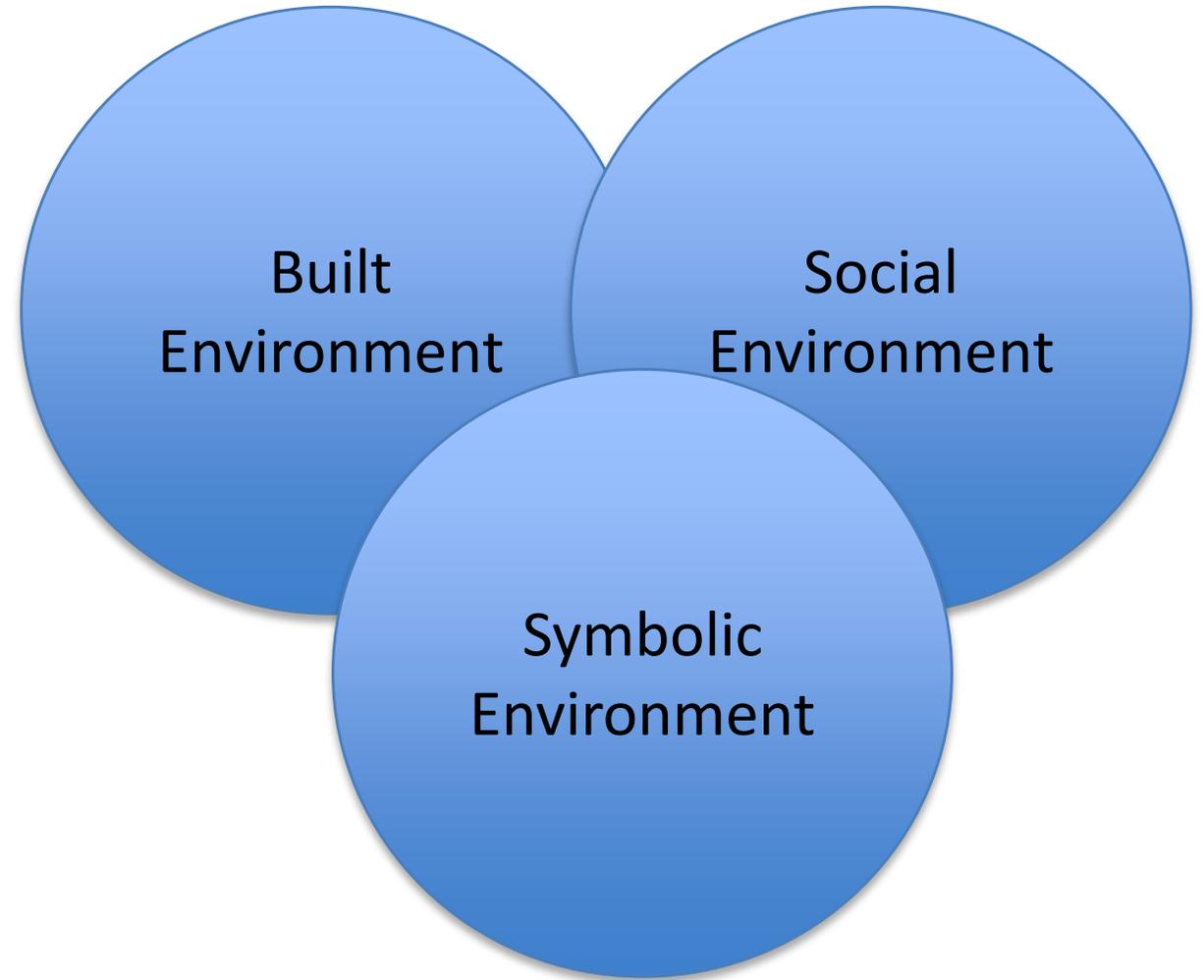


How do we understand “environment”?

In stroke rehabilitation the physical environment is a multidimensional concept including:

- Built environment
- Social environment
- Symbolic environment

These dimensions interact and shape everyday life after stroke.



Built Environment



- Housing design and accessibility
- Outdoor environments and neighbourhoods
- Transportation and mobility opportunities
- Barriers and facilitators for daily activities

The built environment can either enable or restrict participation and independence.

Social Environment



- Family, friends, and social networks
- Support from professionals and community services
- Opportunities for social interaction and participation

Social environments influence motivation, engagement, and recovery trajectories.

Symbolic Environment



- Sense of identity and belonging
- Meaning attached to home and place
- Feeling “at home” and in control

The symbolic environment is closely linked to dignity, autonomy, and quality of life.



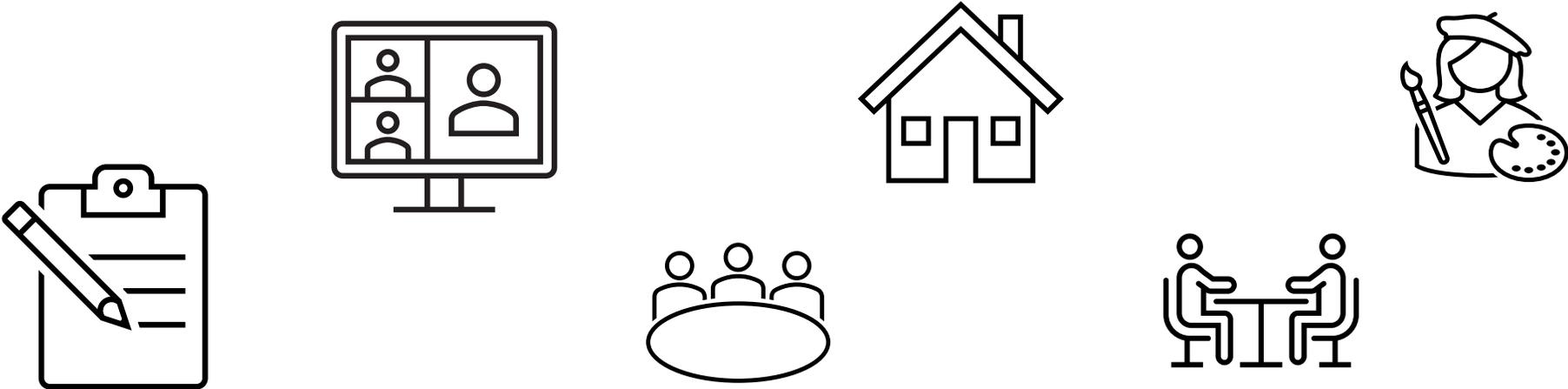
Stroke, environment and participation: Why place matters

European Life After Stroke Conference
Stockholm 9-10 March 2026

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Emerging evidence from our research



Integrating environment in home-based stroke rehabilitation

The environment is partly acknowledged

Interventions are often generic rather than context-specific

Environmental issues are addressed reactively, not proactively

Participants describe being informed but not actively nor meaningfully involved in decisions concerning their environment

Yes, they (the HCPs at the hospital) asked, and I said, “I feel so good at home; I can do it all”. And then when I got home, it was not like that. When you lie in your bed and just turn your head right and left, then you feel quite healthy, but when you get up, it was not so easy. (Sara, age 77)

Before, I collected firewood in a basket and stored it. There was no need to carry in firewood often. And it was heavy. I am quite strong. But now, I go out and pick up just a couple of sticks; I do that all day, all evenings because I know it is good for me to move. (Ann, age 72)

Yes, I'm afraid to board (the bus). First, I am going to get the bus card up, and then I'm going to lift the walker. Then I need to blip the card and get myself in. I take the x or x (bus route numbers), there are so many young moms with strollers, old people with walkers and stuff, so it is not easy to get around. I am wobbly in my legs and have poor balance. (Lena, age 89)

Contradictions in experiences

Patients

- Informed more than involved
- The rehabilitation was generic rather than person-centred, and the environment was integrated to a limited extent
- Seldom outside the local environment except for visits to health care

Staff

- Huge contrast to the hospital - the home offer many more opportunities
- Enables person-centered care – focus on meaningful activities in interventions
- Support shared decision making



Environmental barriers and accessibility



There is a shortage of housing with good accessibility

In Sweden, half of those living in apartment buildings do not have a lift, and half of those who do have a lift still have steps in the entrance

2/3 of the apartments are not accessible to those who cannot cope with stairs

Not better in the houses!

- Two floors, bathroom upstairs
- Stairs as the only way to the entrance are more common in detached houses than in apartment buildings

Barriers in the home

More common in multifamily dwellings

Indoors: Most barriers causing problems in kitchen and bathroom



Barriers at the entrance and outside

At the entrances: no lift and high thresholds and/or steps

In the exterior surroundings: difficulty to reach the refuse bin and letterbox were ranked the highest



Consequences

More than half of the study participants (59%) had fallen at least once since their discharge from hospital

Although half of the participants were dependent on walking aids, few had any housing adaptations

Living in a highly inaccessible building was associated with worse rehabilitation outcomes

The activities most restricted by environmental barriers in the home concerned hand and arm use

→ Recovery is not only about regaining function, but about fit between person and environment.

Environment as a shared priority

Across stakeholder groups, environment is described as central to:

- Participation in everyday life
- Autonomy and safety
- Sustainability of rehabilitation outcomes

Key environmental priorities include:

- Accessible and adaptable housing
- Supportive neighbourhoods and mobility options
- Coordination between health care, housing, and community services



Most important and feasible

Experiences from stroke survivors, significant others, healthcare professionals and decision-makers

Using **concept mapping**, participants were asked to:

- Generate ideas about what is important in home-based rehabilitation
- Prioritize what matters most
- Assess what is realistic and feasible to implement in practice

The aim was not only to identify what is important but also what is actually possible to implement.

Areas of importance

Several areas were rated as particularly important:

- Rehabilitation tailored to the person's own goals and needs
- Active involvement in decision-making
- A well-functioning interprofessional team with competent staff
- Social support from significant others
- A safe and adapted home environment

Participants emphasized that rehabilitation is about being able to live one's life not only physical training.

Feasibility

Person-centred care and participation stood out as an area that is:

- Highly prioritized
- Realistic to improve in practice

→ Improving stroke rehabilitation requires structural attention to environments where recovery actually takes place.

Elf et al., 2025

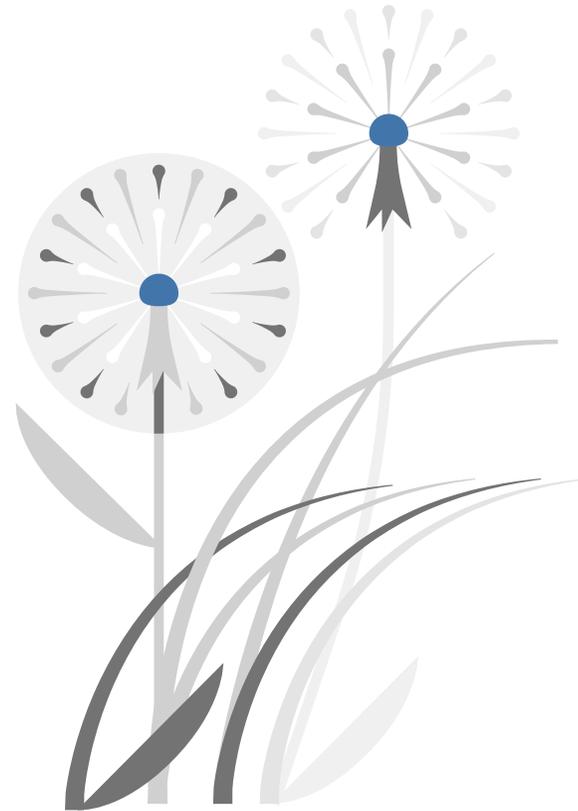
Important but more challenging to implement:

- Sufficient time and resources
- Better coordination between care providers
- Adaptation of the home and local environment (!)
- Access to rehabilitation outside the home

Implications for life after stroke

To better support life after stroke, we need to:

- Integrate environmental assessment into rehabilitation planning
- Move beyond generic interventions
- Actively involve stroke survivors in decision-making
- Strengthen collaboration across health care, housing, and community planning



Refereres

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