

## End of Phase 1 Implementation Questionnaire

### TRANSLATING NEUROREHABILITATION RESEARCH INTO CLINICAL PRACTICE: THE SENSE IMPLEMENT PROJECT

Please take a moment to fill out this questionnaire. We are interested to find out about your experience with using SENSE assessment methods and your current approaches to treating somatosensory loss in your clinical setting. When you have finished, please return this survey to the Associate Researcher.

#### Section A – Background Information

Therapist initials LS

Date 10/12/19

Gender: ☐ Male ☒ Female

Discipline: ☒ Occupational Therapy

☐ Physiotherapy ☐ Other \_\_\_\_\_

Degree level: ☒ Bachelor's degree

☐ Coursework Masters ☐ Masters

☐ Doctoral

☐ Other \_\_\_\_\_

Years of OT/PT Experience: 5

Current Position: OT - Grade 2

Years experience working with stroke clientele: 3

Workplace (please specify): Epworth Richmond

How many hours do you work as an OT/PT in a typical work week? 38

Have you used SENSE Assess with SENSE equipment to measure upper limb sensory loss in your clients?

☒ Yes ☐ No

If yes, please estimate how many **stroke clients** you have used SENSE assessment measures with:

1

If yes, please estimate how many **other clients** you have used SENSE assessment measures with:

4

When a stroke client presents with suspected sensory loss, would you use SENSE Assess measures and equipment?

- ☒ Yes    ☐ No

If yes, how often would you use SENSE Assess measures and equipment with stroke clients?

- ☒ Rarely  
☐ Sometimes  
☐ Often  
☐ Always

Comments:

Fluctuating stroke clients in neuro  
admissions

## Section B- Somatosensory Assessments

We are interested to find out about your practice in assessment of somatosensory loss since starting with the SENSE Implement project. Please answer the following questions:

1. How often do you assess for sensory loss for clients with stroke? *Please tick one only.*

- ☐ Never  
☐ Rarely  
☐ Once a month  
☒ Once a fortnight  
☐ Once a week  
☐ 2-3 times a week  
☐ 4-5 times a week  
☐ Other (please specify) \_\_\_\_\_

2. What clinical sensory assessments do you normally use for clients with stroke? *Please tick all that apply.*

- |   |  |
|---|--|
| <input type="checkbox"/> None   | <input type="checkbox"/> Two-point discrimination                              |
| <input checked="" type="checkbox"/> Light touch (fingertip, cotton wool)      | <input checked="" type="checkbox"/> Stereognosis/tactile object discrimination |
| <input checked="" type="checkbox"/> Pressure (fingertip)                      | <input checked="" type="checkbox"/> Proprioception/kinesthesia (limb matching) |
| <input checked="" type="checkbox"/> Hot-cold discrimination (e.g. test tubes) | <input type="checkbox"/> Proprioception/kinesthesia (thumb up/down)            |
| <input type="checkbox"/> Vibration  | <input type="checkbox"/> Texture discrimination (3-5 textures)                 |
| <input type="checkbox"/> Pain   | <input type="checkbox"/> Other (please specify) _____                          |
| <input type="checkbox"/> Point localization tests                             |  |

3. Which of the following standardised somatosensory assessments do you **currently** use? *Please tick all that apply.*

- ☐ None
- ☐ Rivermead Assessment of Somatosensory Performance (RASP)
- ☐ Nottingham Sensory Assessment (NSA)
- ☐ Monofilaments: Semmes-Weinstein or WEST hand monofilaments
- ☒ Wrist Position Sense Test (WPST)
- ☐ Tactile Discrimination Test (TDT)
- ☒ Functional Tactile Object Recognition Test (fTORT)
- ☐ Manual Form Perception Test (Ayres)
- ☐ SENSE Assess Kit
- ☐ Other (please specify) \_\_\_\_\_

4. For what reasons would you conduct a sensory assessment? *Please tick all that apply.*

- ☒ Diagnosis
- ☐ Prognosis
- ☒ Treatment planning
- ☐ Discharge planning
- ☐ Education
- ☐ Other (please specify) \_\_\_\_\_

5. Please indicate your level of agreement with the following statement (*please circle one number only*)

**"I believe it is my role to assess sensation of stroke clients in my clinical practice"**

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
1	2	3	4	5

Comments:

---



---



---

*Please answer the following questions by indicating the level of importance by drawing a vertical line on the line provided:*

6. How important do you consider assessing sensation in your practice?

<div style="border-top: 1px solid black; width: 100%; position: relative;"> <div style="position: absolute; left: 0; top: -5px; border-left: 1px solid black; border-right: 1px solid black; height: 10px;"></div> <div style="position: absolute; right: 0; top: -5px; border-left: 1px solid black; border-right: 1px solid black; height: 10px;"></div> </div>	<div style="border-top: 1px solid black; width: 100%; position: relative;"> <div style="position: absolute; left: 50%; top: -5px; border-left: 1px solid black; border-right: 1px solid black; height: 10px;"></div> </div>	<div style="border-top: 1px solid black; width: 100%; position: relative;"> <div style="position: absolute; left: 0; top: -5px; border-left: 1px solid black; border-right: 1px solid black; height: 10px;"></div> <div style="position: absolute; right: 0; top: -5px; border-left: 1px solid black; border-right: 1px solid black; height: 10px;"></div> </div>
Not at all important		Very important

Comments:

---



---

**7. How would you rate your skill level in assessing sensory loss?**

-----	-----
Not at all skilled	Very skilled

Comments:

---



---



---

**8. How confident are you in your ability to detect sensory loss?**

-----	-----
Not at all confident	Very confident

Comments:

---



---



---

**9. Reflecting on your current practice, please indicate your level of agreement with the following statements (*please circle one number only*)**

**"Since starting in the SENSE Implement Project, I have gained knowledge in how to assess somatosensation in a client with stroke in a standardized way"**

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
1	2	3	4	5

Comments:

---



---



---

**"Since starting in the SENSE Implement Project, my method of assessing sensation has changed"**

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
1	2	3	4	5

Comments:

---



---



---



**10. How satisfied are you with SENSE Assess measures overall?**

<div style="border-top: 1px solid black; height: 20px; width: 100%;"></div>	<div style="border-top: 1px solid black; height: 20px; width: 100%;"></div>	<div style="border-top: 1px solid black; height: 20px; width: 100%;"></div>
Not at all satisfied		Very satisfied

Comments:

---



---



---



---

**11. Please indicate your level of agreement with the following statements (*please circle one number only*)**
**"I find the Tactile Discrimination Test (TDT) useful in my clinical practice"**

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
1	2	3	4	5

**"I find the Wrist Position Test (WPST) useful in my clinical practice"**

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
1	2	3	4	5

**"I find the functional Tactile Object Recognition Test (fTORT) useful in my clinical practice"**

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
1	2	3	4	5

**"Overall, I find the SENSE\_assess measures useful in my clinical practice"**

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
1	2	3	4	5

**"SENSE\_assess is a good fit with my clinical approach to assessment"**

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
1	2	3	4	5

12. Please indicate your level of agreement with the following statement (*please circle one number only*)

**"I am aware of the published research on assessments for somatosensation following stroke"**

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
1	2	3	4	5

Please list the types of resources you are aware of: \_\_\_\_\_

---



---



---

### Section C - Somatosensory Treatment

13. Do you currently treat sensory loss for clients with stroke? *Please tick one only.*

- ☒ Yes  
☐ No

14. If you do treat for sensory loss, please indicate body areas that you typically focus on  
*Please tick all that apply.*

- ☒ Lower limb (legs and feet)  
☒ Upper limb (shoulder, arms, hand)  
☐ Trunk  
☐ Other (please specify): \_\_\_\_\_

15. If a stroke client has impaired body sensation, how often do you treat sensory impairment?  
*Please tick one only.*

- ☒ Always  
☒ Frequently  
☐ Occasionally  
☐ Rarely  
☐ Never

Comments: \_\_\_\_\_

---

16. Please indicate your level of agreement with the following statement (*please circle one number only*)

**"I believe it is my role to treat somatosensory impairments of stroke clients in my clinical practice"**

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
1	2	3	4	5

Comments: \_\_\_\_\_

---

**17. Which sensory modalities do you think are important to treat in your clinical setting?**

*Please tick all that apply.*

- ☒ None
- ☒ Pain
- ☒ Touch detection
- ☒ Proprioception discrimination (position sense)
- ☐ Hot-Cold detection/discrimination
- ☐ Texture discrimination
- ☐ Two-point discrimination
- ☐ Vibration sense
- ☐ Sustained pressure
- ☒ Kinesthesia (detection of bodily position, weight, or movement of the muscles, tendons, and joints)
- ☒ Stereognosis/object discrimination (recognition or identification of objects by use of touch)
- ☐ Graphesthesia (recognition of writing on the skin by the sensation of touch)
- ☐ Other (please specify) \_\_\_\_\_

**18. For what reasons would you treat somatosensory impairments of the upper limb?**

*Please tick all that apply*

- ☒ Impact on a client's independence in activities of daily living
- ☐ Impact on a client's life roles
- ☐ Client safety
- ☐ Impact on sensory capacity
- ☒ Impact on motor function
- ☐ Learned non-use
- ☐ Other (please specify) \_\_\_\_\_

**19. What types of somatosensory rehabilitation approaches do you currently use?**

*Please tick all that apply.*

- ☐ None
- ☒ Compensatory strategies (e.g. education regarding hazards)
- ☒ Repeated exposure to sensory stimuli
- ☒ Sensory re-education (i.e. including feedback through vision, subjective grading of stimuli, verbalization of sensation between both hands)
- ☐ Somatosensory discrimination training
- ☐ Bombardment (e.g. vibration or hot/cold)
- ☐ Finding objects in medium such as sand or rice
- ☐ Structured activities/games (e.g. ball work, blind dominoes)
- ☒ Sensory rehabilitation in the context of everyday activities (e.g. dressing, cooking)
- ☐ Desensitization
- ☐ Light touch stimulation
- ☐ Match or identify textures, shapes and/or objects
- ☐ Discrimination of limb positions and movement
- ☐ Joint approximation
- ☐ Weekly retesting with feedback
- ☐ General stimulation using sensory stimuli

*Specific sensory rehabilitation approaches:*

- ☐ Graded sensory exercises with feedback (Yekutiel and Guttman, 1993)
- ☐ Attended stimulation of specific body sites (Dannenbaum & Dykes, 1988).

- ☐ Sensorimotor exercises (Byl et al., 2003)
- ☐ Stimulus specific sensory training (e.g. of touch sensation) (Carey et al., 1993)
- ☐ Stimulus generalization training to enhance transfer (Carey et al., 2005; 2011)
- ☐ SENSE sensory discrimination training (Carey et. al., 2011).

*Other approaches for sensory rehabilitation:*

- ☐ Cutaneous electric stimulation
- ☐ Intermittent pneumatic compression (Cambier, 2003)
- ☐ Thermal stimulation (via hot and cold packs) (Chen, 2005)
- ☐ Inflatable pressure splint (Poole, 1990)
- ☐ Mirror therapy

- ☐ Other

*Please indicate method/s in brief detail within this box*

**20.** How often would you conduct these treatments? *Please tick one only.*

- ☐ Never
- ☐ Rarely
- ☒ Once a month
- ☒ Once a fortnight
- ☐ Once a week
- ☐ 2-3 times a week
- ☐ 4-5 times a week
- ☐ Other (please specify) \_\_\_\_\_

**21.** Over what timeframe would you typically conduct these treatments with a stroke client?

*Please tick one only.*

- ☐ Never
- ☐ Once only
- ☐ ≤ 1 week
- ☒ 1-2 weeks
- ☒ 3-4 weeks
- ☐ 5-6 weeks
- ☐ Other: \_\_\_\_\_

**22.** Please indicate your level of agreement with the following statement (*please circle one number only*)

**"The current somatosensory rehabilitation approaches I use are generally effective for most clients"**

Strongly disagree      Disagree      Neither agree nor disagree      Agree      Strongly agree

1

2

3

4

5



Comments:

---



---



---

**23.** Please indicate your level of agreement with the following statement (*please circle one number only*)

**"There is a need to change the current method of treating somatosensory impairments in my practice"**

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
1	2	3	4	5

Comments:

*Not certintinty in effectiveness of current interventions*

*Please indicate your response by drawing a vertical line on the line provided for Q24-Q27*

**24.** How important do you consider treating somatosensory impairments in your practice?

Not at all important	_____	Very important
----------------------	-------	----------------

Comments:

---



---

**25.** How would you rate your skill level in treating sensory loss?

Not at all skilled	_____	Very skilled
--------------------	-------	--------------

Comments:

---



---

**26.** How confident are you in your ability to treat sensory loss?

Not at all confident	_____	Very confident
----------------------	-------	----------------

Comments:

---



---

Strongly disagree      Disagree      Neither agree nor disagree      Agree      Strongly agree

1                      2                      3                      4                      5

	Never	Rarely	Sometimes	Often	All of the time
Experience with similar clients in the past	1	2	3	4	5
Colleagues opinion	1	2	3	4	5
Research literature	1	2	3	4	5
Short courses/continuing professional development	1	2	3	4	5
Text books	1	2	3	4	5
Undergraduate course materials	1	2	3	4	5

10

## Section D – Experience of using SENSE Assess

30. Have you experienced any **barriers** to adopting or implementing the use of SENSE Assess to conduct somatosensory assessments with stroke clients?

- ☒ Yes  
☐ No

*If Yes, please tick all that apply:*

- ☐ Unsure of how to conduct assessments  
☐ Unsure how to score assessments  
☐ Unable to access equipment in my working area  
☐ Lack of time  
☐ Lack of interest  
☒ Large caseload  
☐ Difficulty in setting up assessment equipment  
☐ Difficulty engaging clients in the SENSE Assess assessment process  
☐ Faults with SENSE Assess Equipment  
☐ Limited resources to support change in this area  
☐ Lack of support from colleagues  
☐ Lack of support from my supervisor or management  
☐ Lack of support from research team  
☐ Other (please specify) each client's fluctuating stroke

31. Have you experienced any **enablers** to adopting or implementing the use of SENSE Assess to conduct somatosensory assessments with stroke clients?

- ☒ Yes  
☐ No

*If Yes, please tick all that apply:*

- ☒ Ability to refer to training manual when conducting assessments  
☐ Ability to refer to training manual when scoring assessments  
☐ Ease of access to equipment in my working area  
☐ Designated time to practise assessment skills  
☐ Interest in somatosensory assessment  
☐ Manageable caseload  
☐ Availability of instructions to set up assessment equipment  
☐ Interest of clients in the SENSE Assess assessment process  
☐ Design and use of SENSE Assess Equipment  
☐ Available resources to support change in this area  
☐ Support from colleagues  
☐ Support from my supervisor or management  
☐ Support from research team  
☐ Other (please specify) \_\_\_\_\_

32. Please comment on additional factors within your working environment that lead you to feel supported or unsupported in your ability to conduct SENSE Assess in the way that you'd like:

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

33. How would you rate the degree of ease when setting up the SENSE Assess equipment within your clinical setting?



Please provide comments on your experiences : \_\_\_\_\_

Bulky, large amount of components  
for pack up and down time  
on top of Ax and documentation

34. How would you rate the degree of ease in completing scoring of SENSE Assess?



Please provide comments on your experiences : \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

35. Do you intend to use SENSE Assess to assess upper limb somatosensory impairment in the future?

- ☒ Yes  
☐ No

Please provide reasons: \_\_\_\_\_

Provides outcome measures  
on specific areas for myself  
and clients



**36.** As part of the Phase 2 of the SENSE implement project we want to find out how accurately SENSE therapy is being delivered. This is defined as “treatment fidelity” in the current literature.

There are several strategies recommended in the literature to help to assess and enhance the treatment fidelity process. Each strategy provides therapists with the opportunity to receive feedback on their performance and information on how they can improve their practice.

We would like to now understand from your perspective how comfortable you would feel using each of the strategies outlined below, and how feasible each could be to implement within your workplace. Please rate the following:

**1) Self-evaluate own performance using pre-developed checklist.**

Level of comfort with proposed strategy

Not at all comfortable

1

2

3

4

5

Very comfortable

Feasibility of implementing proposed strategy in your workplace

Not at all feasible

1

2

3

4

5

Very feasible

**2) Peer observation and feedback by SENSE clinician using pre-developed checklist.**

Level of comfort with proposed strategy

Not at all comfortable

1

2

3

4

5

Very comfortable

Feasibility of implementing proposed strategy in your workplace

Not at all feasible

1

2

3

4

5

Very feasible

### 3) Real time observation and feedback by SENSE Trainer.

Level of comfort with proposed strategy

Not at all comfortable

1

2

3

4

5

Very comfortable

Feasibility of implementing proposed strategy in your workplace

Not at all feasible

1

2

3

4

5

Very feasible

### 4) Video recorded observation and feedback by SENSE Trainer.

Level of comfort with proposed strategy

Not at all comfortable

1

2

3

4

5

Very comfortable

Feasibility of implementing proposed strategy in your workplace

Not at all feasible

1

2

3

4

5

Very feasible

## Section E – Other

Other comments or suggestions:

---



---



---



---



---

---

---

---

---

---

You have come to the end of the survey.  
Thank you for your participation.

