

Supplementary material 2: Interview questions

Semi-structured interview (after six months of PMI home training)

Introduction

- Introduction of the interviewer
- Explanation of the aim of the study and the interview procedure
- A brief explanation of the different parts of the interview: phantom limb complaints during the transition between hospital and home training, home treatment, phantom phenomena experience, evaluation of the treatment, phantom movements, and future perspective of PLP.

Turn on the voice recorder

Interviewer: "Start of the interview with (participant number) on (date)."

Time at the start of the interview: ...

A. Transition from PMI treatment at the hospital to PMI treatment at home

1. Can you tell me about the phantom limb complaints you experienced prior to the PMI treatment at home?
 - Type of complaints, start of complaints, course of complaints throughout the day
2. How was your experience with PMI treatment when you were training at the hospital?
3. What was according to you, the results of PMI treatment at the clinic? What impact did this training have on your PLP and in your life (positive or negative)?
 - Cluster 1: prosthesis use, medication (*if applicable*)
 - Cluster 2: paid work, volunteering, hobbies, sports, social contacts
 - Cluster 3: sleep, energy level, mood, emotions, quality of life
4. How did you feel after ending the treatment at the hospital?
5. How did PLP develop when you were at home? (after the hospital treatment)
6. During this period (after the 1-month follow-up at the clinic and before home training), in what ways did the phantom limb complaints affect your daily life?
 - Cluster 1: prosthesis use, medication (*if applicable*)
 - Cluster 2: paid work, volunteering, hobbies, sports, social contacts
 - Cluster 3: sleep, energy level, mood, emotions, quality of life
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7. After the PMI treatment at the hospital, you were offered to continue with the PMI- treatment on your own at home. What were your initial expectations towards this treatment?

B. Effect of PMI-home treatment on PLP and daily life/functioning

8. What was for you the goal of the PMI-home treatment? Has this goal been achieved so far?
9. How has your experience with PMI- home treatment been until today?
10. Has the PMI- home treatment changed something in your daily life?
- Cluster 1: phantom limb complaints, prosthesis use, medication (*if applicable*)
 - Cluster 2: paid work, volunteering, hobbies, sports, social contacts
 - Cluster 3: sleep, energy level, mood/emotions, quality of life
11. In what way did the PMI-home treatment affect you as a person?
12. To what extent did the PMI-home treatment influence your life?
Suggestion: Maybe ask about how the treatment could be improved? How would the ideal treatment be for this participant?
13. Which part of the PMI-home treatment do you think is the most beneficial for you and why?
(virtual reality, augmented reality, TAC test or the game)

C. Phantom phenomena experience: PMI-home training

14. How do you perceive the phantom limb at the moment?
15. Have you felt any difference in your perception towards your phantom limb during the PMI home training (comparing before and after the home training)?
- Cluster 1: kinaesthetic - perception of size, shape, and proprioception,
 - Cluster 2: kinetic: - perceptions of movement
 - Cluster 3: exteroceptive - prickling and itching
16. Have you experienced any changes in your attitude towards your phantom limb during the home training stage? How is it now after 6 months of home training? Is there any difference compared to before the training at home?
17. When you train with PMI, how easy is it to imagine the movements of the phantom limb? (is it hard, is it easy?). How much (mental) effort does it require?
18. Could you describe the process of imagining phantom limb movements more in detail? Do you form a mental image, or do you focus on imagining the sensations?
- If it is a mental image, how does it look? Is it like your other limb? Like the virtual limb in the screen? Bigger, smaller? Color? Do you focus on a particular part of the limb? You can tell us anything that comes to your mind

19. If you focus on the sensation, could you describe a bit more what are the main features of the sensations that you focus the most on? (i.e., the position of the limb? What part of the limb? You can tell us anything that comes to your mind)
20. When you train at home with the system, do you perceive the virtual limb as part of your body? If so, to what extent do you think the movement of the virtual limb help you feel that the limb was a part of your body?
21. How was your experience training by yourself? Did you require assistance from someone at home or guidance from the therapist to perform the training at home (for example, using the software or know how to progress in the treatment) ?
22. Were there any factors that were limiting you from following the home treatment program?
23. Were there any factors that were encouraging you to follow the home treatment program?
24. Do you feel that the home training has satisfied your expectations so far?
25. Do you think you would be able to practice without the training system (now or in the near future)? Meaning to imagine the virtual limb on your mind and practice without requiring the system?

D. Phantom Limb Movements

26. Do you feel you have control over your phantom limb movements?
27. Have you perceived any difference in the control of your phantom limb movements during the different training stages (hospital and home training)? If so, how do you think the training has helped to control the phantom?

E. PLP during RCT

28. Has your perception of PLP changed after the treatment at home and at the clinic? If so, what do you think has changed? What is the most noteworthy change?
29. Regarding the complete experience with the PMI treatment (both at the clinic and home), what do you think was the main factor influencing the changes (increase or decrease) on your PLP?
30. Have your thoughts and understanding about PLP changed during the treatment? If yes, can you tell us a bit more about how they have changed? With understanding about PLP, we mean the way that you understand the way that PLP works and specifically impacts your life and the ways in which you can control it.
31. How do you see yourself in the future?

E. General

32. If you had to give a recommendation to some else living with PLP, what would it be? And how would you suggest them to overcome the barriers that PLP brings?

33. Would you like to add anything to what we discussed?

Interviewer: "End of the interview with (participant number) on (date)."

Turn off the voice recorder

Time at the end of the interview: ...

Closing part

Evaluation of interview:

- Explain returning transcript for comments/corrections
- Provide travel expenses declaration form if applicable
- Thank participant for cooperation
- Answer additional question