

Additional file 1: Content of sessions and home assignments of multimodal treatment

Week	Content	Assignment (HTI* (5 assignments per week))
1	<ul style="list-style-type: none"> • personal login to the HTI • instruction on HTI use for assignments • patients receive the book Explain Pain • neurophysiology of (chronic) back pain • local trunk muscle recruitment, dissociation exercises, movement control 	<ul style="list-style-type: none"> • reading section of the book Explain Pain • answer 18 questions related to the section read • movement control exercise, frequency and duration reported in HTI
2	<ul style="list-style-type: none"> • neurophysiology of pain • movement control exercises • instruction on left-right recognition training with the Recognise® program 	<ul style="list-style-type: none"> • similar to previous week • left-right recognition training with 3 x 20 pictures of trunk positions
3	<ul style="list-style-type: none"> • instruction on SRT • neurophysiology of pain and analysis of patient's individual situation • purpose of SRLM explained with video • movement control exercises 	<ul style="list-style-type: none"> • perform SRT on HTI (3 x 40 two numbered dots to discern) • watching video with SRLM (linked on HTI) • movement control exercise, frequency and duration reported in HTI
4	<ul style="list-style-type: none"> • education on the application of movement control into daily living • graded exposure to functional movement 	<ul style="list-style-type: none"> • perform SRT on HTI (3 x 40 numbered dots) • perform 3 x 20 images on Recognise® • movement control exercise, frequency and duration reported in HTI
5	<ul style="list-style-type: none"> • analysis of everyday movements, discussion of experienced limitations, finding better movement strategies 	<ul style="list-style-type: none"> • perform SRT on HTI (1 x 40 letters to perceive) • watching video with SRLM • movement control exercise, frequency and duration reported in HTI
6	<ul style="list-style-type: none"> • as in previous session • emphasis on individual resources and recreation 	<ul style="list-style-type: none"> • perform SRT on HTI (1 x 30 3-letter-words to perceive) • watching video with FRLM • movement control exercise, frequency and duration reported in HTI
7	<ul style="list-style-type: none"> • as in previous session 	<ul style="list-style-type: none"> • perform SRT on HTI (3 x 40 numbered dots) • watching video with FRLM • movement control exercise, frequency and duration reported in HTI
8	<ul style="list-style-type: none"> • wrap-up of acquired knowledge, newly integrated movement behaviour and handling of pain exacerbations in the future 	<ul style="list-style-type: none"> • reading a summary of the key points of the programme, including application to everyday life • watching video with FRLM • movement control exercise, frequency and duration reported in HTI

HTI web-based home training interface; SRT Sensory Retraining Tool (discerning numbered dots, pressed on patient's back); SRLM small range lumbar movement (to observe and perform, such as in a gymnastic tutorial video); FRLM full range lumbar movement.