Behavior change techniques (BCTs) reported used by patients (n = 21) and their perceptions of BCTs used by their healthcare professionals during the rehabilitation process				
	Patient-reported examples			
BCT	**Actions performed by patients**	**N**	**Actions performed by healthcare professionals**	**N**
	GOALS AND PLANNING (N = mentioned by x/21 patients)			
Goal setting (behavior) [1.1]	Set personal specific, written goals about desired behaviors, eg quit smoking, perform daily walks, eat healthy according to recommendations, exercise x 2 weekly, get enough rest, improve activity pacing, resume social activities, complete education, maintain 50% work ability.	20	Assisted in developing and writing specific behavioral goals in cooperation with the patients.	17
Problem solving / coping planning [1.2]	Identification of risk factors for not exercising and plans to overcome them. Time management to attain social goals. Workplace adaptations and adaptation of working hours to be able to exercise as planned and avoid pain and exhaustion.	8	Follow-up of training in the home setting with problem-based adjustment of exercises to improve feasibility.	6
Goal setting (outcome) [1.3]	Improve physical function and fitness. Improve sleep quality and quality of life. Climb a ski flying hill with 1078 stairs.	9	Assisted with identifying, prioritizing, and reducing of goals, breaking long-term goals into sub-goals to be manageable.	7
Action planning (including implementation intentions) [1.4]	Detailed exercise planning carried out in correspondence with individual goals (how, what, when, where, how long, with whom). Choosing activities of less joint strain (swimming, bicycling). Lower demands. Include plans for rest. Express needs for support. Ensure that activities can be carried out at an appropriate pace. Keep a stock of healthy snacks.	16	Provided advice as regards individual adaptation of exercises (dosage, frequency, duration) and activities in close collaboration with the patients. Follow-up planning, including contacting relevant resources in the municipality.	14
Review of behavior goal(s) [1.5]	Review of rehabilitation goals at discharge from rehabilitation and consider adjusting or setting new goals. Postpone goal pursuit when external circumstances block.	20	Jointly review patient-specific rehabilitation goals at discharge and assist in adjustment or developing new goals.	17
Review of outcome goal(s) [1.7]	Examine a gradually increasing walking distance or walking speed according to set goal. Undergo functional tests to measure progress. Measure goal achievement.	8	Conduct functional tests to measure progress. Assess goal achievement together with patient.	3
Behavioral contract [1.8]	Create written rehabilitation goals in collaboration with healthcare personnel.	20	Assist in developing written rehabilitation goals together with patient.	17
Commitment [1.9]	Make appointments with others to exercise. Articulate intent to beat a friend in a race. Ask for help to complete a task.	6	Provide “homework” to patients. Create formalized binding agreements with patients.	3

	FEEDBACK AND MONITORING (N = mentioned by x/21 patients)			
Feedback on behavior [2.2]	Use of mobile applications to monitor performance of activity.	2	Constructive feedback, cheering, and encouragement during exercise. Telephone follow-up with feedback on goal-directed efforts and progress.	18
Self-monitoring of behavior [2.3]	Use a training diary. Use a speedometer on a treadmill. Timing of repeated hiking trips to the same destination and count the number of breaks needed.	4		0
Self-monitoring of outcome of behavior [2.4]	Use a pedometer. Use a tape measure for waist circumference. View a digital graph based on self-reported outcome measures (pain, function, health-related quality of life).	13		0
Feedback on outcome(s) of behavior [2.7]	Visual feedback sought from a digital graph based on self-reported outcome measures (pain, function, health-related quality of life).	13	Conducting functional performance tests, eg walking test, hand grip strength test.	3
	SOCIAL SUPPORT (N = mentioned by x/21 patients)			
Social support (general) [3.1]	Family support for an active lifestyle. Healthy diet change for weight reduction together with husband. Friend accompanying on walks. Participation in supervised group exercises in the municipality. Receive advice from fellow patients.	8	Encouragement and counselling to engage patients in goal-directed rehabilitation activities. Motivational interviewing. Positive engagement, good communication, and support during exercise. Arrange patient group activities with opportunities to push boundaries within a safe environment. Telephone support to encourage healthy self-management behaviors after rehabilitation discharge. Establish contact with relevant follow-up support in the municipality.	19
Social support (practical) [3.2]	Publicly appointed financial guardian.	1	Providing technical training equipment enabling continuation of exercise. Help with preparing for conversations with employer and the welfare system regarding workplace adaptations. Referral for X-ray examination.	9
Social support (emotional) [3.3]	Emotional up-backing from fellow patients, family, friends, colleagues.	9	Providing emotional support and security while patients push boundaries, experience frustration and setbacks.	11
	SHAPING KNOWLEDGE (N = mentioned by x/21 patients)			
Instruction on how to perform a behavior [4.1]		0	Instruction on how to perform physical exercises/activities, individually or in groups. Provision of individually adapted training programs (frequency, intensity, duration). Educational classes on healthy diet, training theory and physical exercise, activity pacing, theory of disease, pharmacology. Cookery class (skills training).	18

	NATURAL CONSEQUENCES (N = mentioned by x/21 patients)			
Information about health consequences [5.1]	Exchange of experiences with fellow patients. Read articles about exercise and arthritis in the patient organization journal.	5	Educational classes	7
Anticipated regret [5.5]	Thoughts about unwanted consequences of continued smoking and inactivity in terms of health and life expectancy.	3		0
Information about emotional consequences [5.6]	Coping with anxiety and negative thoughts during training.	1	Verbal information and support during challenging exercise.	1
	COMPARISON OF BEHAVIOR (N = mentioned by x/21 patients)			
Demonstration of the behavior [6.1]		0	Providing observable instruction on how to perform desired behaviors for patients to imitate, eg exercise, healthy cooking.	15
Social comparison [6.2]	Compare own physical performance to fellow patients', or neighbors', or family members' performances, and using the result of the comparison as inspiration and motivation for further efforts.	13	Tell the patient that his/her exercise efforts extend beyond average, or that he/she is fit for his/her age.	1
	ASSOCIATIONS (N = mentioned by x/21 patients)			
Prompts or cues [7.1]	Placing the written rehabilitation goals in a visible place to ensure they are remembered. Downloading mobile apps with reminders.	2		0
	REPETITION AND SUBSTITUTION (N = mentioned by x/21 patients)			
Behavioral practice / rehearsal [8.1]	Get exercise by playing eg frisbee, without calling it exercise. Practice and rehearsal of rehabilitative activities, individually and in groups.	19	Supervision of patients practicing and rehearsing rehabilitative activities, individually and in groups.	18
Habit formation [8.3]	Create routines with regular training times, eg do exercise on Saturdays at 09.00 a.m.	5		0
Graded tasks [8.7]	Start with low-intensity training, before gradually increasing the load, eg on treadmill start to walk slowly, then gradually increase the speed until jogging and running.	16	Provision of personalized training based on the individual patient's level of function and gradually increased progression towards goals.	12
	COMPARISON OF OUTCOMES (N = mentioned by x/21 patients)			
Pros and cons [9.2]	Morning yoga sounds attractive, but then you are also very tired.	5	Advise the patient to list and compare a caloric budget with and without excessive use of butter to facilitate the introduction of a low-fat diet for weight reduction.	1
Comparative imagining of future outcomes [9.3]	The patient imagines that the effect of exercising will be increased energy and performance, compared to not exercising.	1		0

	REWARD AND THREAT (N = mentioned by x/21 patients)			
Material reward [10.2]	Use clip cards on organized walks that lead to participation in a prize draw. Get paid by a less fit neighbor to walk up a steep hill and collect the mail.	4		0
Social reward [10.4]	Sending a picture of the treadmill while exercising to a friend and receive praise in return.	4	Providing praise for progress in exercise performance.	3
Self-incentive [10.7]	Signing up for a desired mountain trip and a sailing trip, knowing that participation will require improved physical fitness.	1		
Self-reward [10.9]	A hot cup of tea after walking in the rain. Nature experiences associated with the training, such as enjoying the landscape and seeing wild animals.	3		0
	REGULATION (N = mentioned by x/21 patients)			
Pharmaco-logical sup-port [11.1]	Use of painkillers to improve exercise participation and performance	8	Provide or encourage the use of painkillers or cortisone in connection with exercise.	8
Reduce negative emotions [11.2]	Use strategies to relax and cope with stress and negative emotions, e.g. do needlework, shift focus, deliberately choose an optimistic mindset, be mindful, have self-compassion, postpone expressing negative emotions in the face of frustration, imagine a safe place.	7	Advise to focus on positive aspects, eg lowering demands instead of being depressed about not being able to carry out activities as planned.	4
Conserving mental resources [11.3]	Limit talking about illness with fellow patients. Be selective and prioritize activities, decline some social gatherings, await various tasks, ensure getting enough sleep. Adapt activity level to today's form.	8		0
	ANTECEDENTS (N = mentioned by x/21 patients)			
Restructu-ring the physical environment [12.1]	Restructure working hours to enable participation in group exercise.	4		0
Restructu-ring the social environment [12.2]	Deliberately cut down the social network to be surrounded by only positive, nurturing people. Changing personal routines to better regulate expectations from older parents in need of household services, freeing time to self-care.	7		0
Avoidance or reducing exposure to cues for the behavior [12.3]	Reduce the temptation to eat unhealthily. Agree with colleagues not to bring cake to work regularly, but rather occasionally and at a time when she is absent. Change the morning routine to have less pain when the children require care.	4		0
Distraction [12.4]	Travel away to escape demanding family care tasks and ensure self-care. Listen to music while walking to distract oneself from pain.	5		

Adding objects to the environment [12.5]	Install exercise equipment at home to make training feasible. Order a food-box with recipes and ingredients for healthy dinners to assist weight loss. Buy a new bed and add a slip-sheet to improve sleep.	11		0
	IDENTITY (N = mentioned by x/21 patients)			
Identification of self as role model [13.1]	Awaiting to smoke if the children have visitors and are outside playing. Involve teenage son in planning and training for a mountain trip to do something fun together and avoid too much focus on illness.	2		0
Reframing [13.2]	View training and resting as a job, ie something you have to do to take care of own health and be able to function well as a mother and in other social roles. To view sugar as a driver for the inflammatory processes, which makes it easier to reduce intake and reduce weight.	10	Ask the patients to imagine the everyday life of a top athlete and imagine that their need for recovery also applies to them, that is, it is appropriate to relax after a training session.	4
Cognitive dissonance [13.3]	Point out discrepancy between self-image (sporty) and current low-exercise behavior.	3		0
Valued self-identity / Self-affirmation [13.4]	Consider oneself as conscientious and reliable, ie possessing useful qualities for behavior change. Healthy activities are performed out of love for own pet dogs and a need to care for them to keep good physical and mental health.	8		0
	SCHEDULED CONSEQUENCES (N = mentioned by x/21 patients)			
[14.1-14.10]		0		0
	SELF-BELIEF (N = mentioned by x/21 patients)			
Verbal persuasion of capability [15.1]	Experience a new awareness of being able to influence and control one's own health.	1		0
Focus on past success [15.3]	Previous experience with exercise helps cope with the new experience.	7		0
Self-talk [15.4]	Being able to override self-doubt and negative thoughts with positive self-talk facilitates the implementation of plans for exercise and outdoor activities.	9		0
	COVERT LEARNING (N = mentioned by x/21 patients)			
[16.1-16.3]		0		0

*Coded using the Behavior Change Technique Taxonomy Version 1 (BCTTV1) and listed in order of the taxonomy, with examples of BCTs reported used by the patients. Some patients reported to use several BCTs within a BCT group, others reported to have used one BCT, and some none; therefore, the aggregated numbers used in Figure 1 and in the main manuscript do not completely match the numbers in this table.