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How the Keep Moving tool helps physiotherapists and patients with long-term health conditions to stay active

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Registration date 11/10/2024	**Overall study status** Completed	[_] Statistical analysis plan [_] Results
Last Edited 31/10/2025	**Condition category** Other	[_] Individual participant data [X] Record updated in last year

Plain English summary of protocol

Background and study aims
Regular exercise makes you healthier, both physically and mentally. Yet it is often difficult to maintain healthy exercise habits. Research shows that people maintain healthy exercise behavior better when it fits their interests and living environment. The physiotherapist can help make this happen. To help the physiotherapist and the patient with this, we have developed the Keep Moving Support Tool. The aim of this study is to see if the Keep Moving Support tool supports physiotherapists in providing personalized exercise counseling and to see if patients start to move more.

Who can participate?
Patients who have a chronic health problem or are at risk of developing a chronic health problem

What does the study involve?
During the therapy, patients perform the KMS Tool together with the physiotherapist. The method consists of a preparation task and a consultation session with the physiotherapist. For the preparation, the physiotherapist asks the patient to read six movement stories of fictional people and to circle what the patient recognizes in themselves. During the consultation, the physiotherapist and the patient will look together for ways to exercise more or differently.

What are the possible benefits and risks of participating?
A possible benefit of participating in the study is that patients will receive personalized advice on how to integrate exercise into their own daily lives and environments. There are no risks identified in participating in the study.

Where is the study run from?
The study will be conducted with 18 physiotherapists working in 10 different community physiotherapy clinical practices in the Netherlands.

When is the study starting and how long is it expected to run for?
January 2023 to September 2024

Who is funding the study?
SIA RegieOrgaan (Netherlands)

Who is the main contact?
Arlette Hesselink, hesselink.a@hsleiden.nl

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Additional identifiers

Clinical Trials Information System (CTIS)
Nil known

ClinicalTrials.gov (NCT)
Nil known

Protocol serial number
SVB/ RAAK.MKB15.004

Study information

Scientific Title
Impact of the Keep Moving Support tool on physiotherapists and physical activity in chronic condition patients: a hybrid implementation effect study

Acronym
KMS-Hybrid Study

Study objectives
1. Supporting physiotherapists in the use and implementation of the Keep Moving Support (KMS) tool will lead to personalized physical activity support in people with or who are at risk for chronic conditions.
2. Providing support to physiotherapists in the use and implementation of the KMS tool will significantly enhance physiotherapists' competence in promoting an active lifestyle among community patients.
3. Use of the KMS tool by community physiotherapists will lead to a significant increase in physical activity levels in individuals with or who are at risk for chronic health conditions.
4. Use of the KMS tool by community physiotherapists will lead to a significant increase in achieving personal physical activity goals in individuals with or who are at risk for chronic health conditions.

Ethics approval required
Ethics approval required

Ethics approval(s)
approved 13/02/2023, The Ethical Research Committee of the University of Applied Sciences Leiden (Zernikedreef 11, Leiden, 2333 CK, Netherlands; +31 (0)639191874; detmar.l@hsleiden.nl), ref: CEO 01/2023 (20230130) and CEO10/2023 (20230905)

Study design
Longitudinal before-after multi-centre implementation effect study using mixed-methods

Primary study design
Interventional

Study type(s)
Prevention, Treatment

Health condition(s) or problem(s) studied
Patients with (or who are at risk) for chronic health conditions

Interventions
Participating physiotherapists will be trained in the KMS Tool and apply this tool to patients with (or who are at risk of) chronic health conditions in the community clinical practice to enhance physical activity.

The Keep Moving Support Tool intervention
The KMS Tool consists of five steps:
1. Preparation before the consult- gaining insight into what "moves" the patient. The physiotherapist hands out the six movement profiles to the patient together with an easy patient guide. The patient will read the profiles and circles or write down what resonates with the patient
2. During the next consult the physiotherapist and the patient discuss what the patient has circled/ written on the profiles – this helps the physiotherapist to understand the client within his /her context
3. The physiotherapist will link the information from the conversation with the intervention decision tool (COM- B model) which will provide the physiotherapist direction for possible Behavioral Change Techniques that align with the patient's context
4. The physiotherapist will liaise with the patient regarding possible solutions/interventions based on Behavioral Change Techniques (COM-B model) from the tool
5. The physiotherapist will use shared decision-making agreements about movement goals and a patient's action plan
The KMS tool consists of preparation by the patient and a consultation session with the physiotherapist. The KMS Tool materials include six movement profiles (steps 1 and 2), and an intervention decision tool (a fan with Behavioral Change Techniques aligned with the COM-B components from the BCW).

The study is a hybrid implementation effect study where we measure the implementation of the KMS tool and the effect of the KMS tool on physiotherapists and patients.

Implementation strategies
Implementation materials and actions were designed based on the CFIR framework prior and will be provided to participating physiotherapists.
Physiotherapists will conduct an e-learning which has various tiles that the physiotherapist will run through at their own pace: the e-learning tool helps to support physiotherapists to understand and apply the KMS Tool in clinical practice. The e-learning will explain how to use the movement profiles, the COM-B model and Behavioral Change Techniques. In the online e-learning is also a video how physiotherapists report the KMS tool in the electronic patient documentation file. Patients' eligibility criteria will be explained to physiotherapists in the learning tool who can participate in the study.
Implementation strategies are embedded throughout the e-learning including learning activities. Strategies include forming a core team in the clinic, understanding and familiarising yourself with the principles and steps of the KMS Tool, using reminders in the agenda and clinic, informing colleagues and clients about the KMS Tool, receiving accreditation points and gift vouchers when physiotherapists apply the KMS Tool to five patients, evaluating patient cases with a colleague, informing other stakeholders about the KMS Tool, and how to promote the KMS Tool. Physiotherapists have to finalize the e-learning before they can start with the recruitment of patients. The researchers will be digitally informed when a physiotherapist has completed the e-learning online.

Other implementation strategies will include:
Aim for two or three physiotherapists (early adopters) per clinic to participate in the study to enhance learning between colleagues.
Team meetings: monthly meetings will be conducted at each clinic, involving physiotherapists, a researcher and students, to share experiences and identify opportunities for improving the implementation process.
A workshop will be planned for physiotherapists to learn communication strategies to conduct personalized movement counseling for patients.

Learning community: one physiotherapist per clinic and two researchers will be participating in three learning community sessions to exchange physiotherapist experiences between clinics.
Electronic Patient Documentation File: to promote connection with daily practice, the KMS Tool will be integrated into the Electronic Patient Documentation File.
Promotion materials: during the study clinics will have access to flyers, posters, a promotion video, and content for narrowcasting to promote the study in the clinical practice.
A digital webinar regarding the decision tool fan, COM- B model and aligned Behavioral Change Techniques of the KMS Tool will be made to support physiotherapists.

Effect measures: see also section primary and secondary outcomes, fidelity measures and process evaluation

Physiotherapists:
To determine the effect of the KMS Tool on physiotherapists a questionnaire will be developed and completed at baseline and 6 months. The questionnaire will include questions to collect:
1. Physiotherapist characteristics (gender, age, years of experience as a PT, years of experience in the community, amount of hours working in a community clinic)
2. The Australian Brief Physical Activity Counselling Questionnaire (ABPAC)
3. The Self-Efficacy and Performance in Self-Management Support for Physiotherapists (SEPSS-PT)
4. The Questionnaire acceptability, appropriateness and feasibility of the intervention for the physiotherapists (AIM, IAM, FIM).
Physiotherapists will be emailed a link which will open the questionnaire. The questionnaire will be housed in Lime Survey and the duration of the questionnaire will be between 45 - 60 minutes. The physiotherapist will need to provide consent before the questions will open.
To understand physiotherapists' experiences and perceptions semi-structured interviews will be conducted at 6 months with each physiotherapist.

Patients:
To determine the effect on patients a questionnaire will be developed which will be completed at baseline (after consultation with the KMS Tool) at 1 and 6 months. The questionnaire will include questions to collect:
1. Patient characteristics (gender, age, and at 1 and 6 months are you receiving physiotherapy treatment)
2. The patient's personal movement goal ‘which the patient will score at each timepoint using a 10-point scale similar to that used in the PSQ
3. The Dutch Physical Activity guideline questions (questions include the amount of physical activity, strength sessions and for people >65 years balance exercises)
4. The self-efficacy questionnaire from Bandura
5. International Physical Activity Questionnaire (IPAQ)
6. Two general questions at 1 and 6 months: the first question will ask, has your confidence decreased/stayed the same/increased since the KMS tool consult and the second question has your amount of physical activity decreased/ stayed the same/ increased since the KMS tool consult.
Patient questionnaires will be performed in person by research assistants. The research assistant will receive a link which will open the questionnaire fitting with the patient's unique code in Lime Survey. The patient is asked for written consent before the questions will appear. The duration is expected to be around 30 minutes. Research assistants will be trained in how to conduct the questionnaire with patients and how to minimize bias

To understand experiences and perceptions semi-structured interviews with a subset of patients will be conducted.

Process evaluation measures:
The interviews with physiotherapists will be completed at 6 months. During the interviews the researchers will also ask questions to understand how the physiotherapists appreciated the various implementation strategies. Physiotherapists will be asked to score the implementation strategies as provided by the research team using a score of 0 to 10, where 0 is extremely bad and 10 is excellent and to explain their score.
In addition, notes will be made during team meetings at each clinic and the learning community to further understand the process of implementation.

Fidelity measures:
To understand how consistently the KMS tool will be applied to patients the researchers will extract the data from the Electronic Patient Documentation (EPD) file. The physiotherapists will enter details in the EPD system after the application of the KMS tool to a patient. The EPD consists of the various KMS Tool steps, the chosen Behavioral Change Techniques and which actions and solutions were discussed with the patient.

Observations of physiotherapists applying the KMS tool will be performed in a subset of patients to understand if physiotherapists apply the KMS tool as intended. An observation form will be filled out by an observer (research assistant) who will be trained in performing the observation by a researcher from the research team.

Intervention Type
Behavioural

Primary outcome(s)
Primary outcome measures - physiotherapists:
1. Performance of movement counseling activities is measured using the Australian Brief Physical Activity Counselling Questionnaire (ABPAC) at baseline and 6 months
2. Reduced hindrance in knowledge, skills, and motivation to movement counselling is measured using the Australian Brief Physical Activity Counselling Questionnaire (ABPAC) at baseline and 6 months

Primary outcome measures - patients:
1. Personal movement goals are measured using the Patient Specific Goal setting method at baseline, 1 month and 6 months
2. Meeting the Dutch movement guidelines standards is measured using a questionnaire at baseline, 1 month and 6 months

Key secondary outcome(s))
Secondary outcome measures – physiotherapists:
1. Performance in self-management support is measured using the questionnaire Self Efficacy and Performance in Self-Management Support for Physiotherapists (SEPSS-PT) at baseline and 6 months
2. Self-efficacy is measured using the questionnaire Self Efficacy and Performance in Self-Management Support for Physiotherapists (SEPSS-PT) at baseline and 6 months
3. Adoption of the Keep Moving Support Tool is measured using the Questionnaire Acceptability, Appropriateness and Feasibility (AIM, IAM, FIM) at baseline and 6 months
4. Perception and perspectives of the Keep Moving Support Tool measured using semi-structured interviews at 6 months

Secondary outcome measures – patients:
1. Self-efficacy is measured using the self-efficacy questionnaire Bandura at baseline, 1 month and 6 months
2. Amount of physical activity is measured using the International Physical Activity Questionnaire (IPAQ) at baseline, 1 month, and 6 months
3. Change in amount of confidence and physical activity is measured using a questionnaire at 1 month and 6 months
4. Perception and perspectives of the Keep Moving Support Tool is measured using semi-structured interviews at 1 month

Process evaluation outcomes:
1. Appreciation of the implementation strategies is measured using a 1-10 score during physiotherapist interviews at 6 months

Fidelity outcome measures:
1. Alignment with the Keep Moving Support Tool by physiotherapists is measured using the Electronic Patient Documentation entry of the Keep Moving Support Tool section at baseline
2. Alignment with the Keep Moving Support Tool by physiotherapists is measured using observations of the consults of the Keep Moving Support Tool by physiotherapists in a subset of patients at baseline

Completion date
30/09/2024

Eligibility

Key inclusion criteria
Physiotherapists:
Physiotherapists who are working in a clinical practice in the community in the Netherlands

Patients:
1. Aged 18 years or older
2. Have a chronic health condition or are at risk of developing a chronic condition (such as patients who recently had a hospital or rehabilitation admission, or who have a health condition and do not meet physical activity guidelines to prevent reoccurrence)

Participant type(s)
Health professional, Patient

Healthy volunteers allowed
No

Age group
Adult

Lower age limit
18 years

Upper age limit
100 years

Sex
All

Total final enrolment
82

Key exclusion criteria
1. Physiotherapists who are working in other settings (e.g. hospital)
2. When increased physical activity leads to negative effects (e.g. acute ankle injury)
3. When increased physical activity is contra-indicated (e.g. rotator cuff repair)
4. Unable to read the movement profiles (e.g. dementia)
5. Unable to read or understand the Dutch language (questionnaires)

Date of first enrolment
15/09/2023

Date of final enrolment
07/02/2024

Locations

Countries of recruitment
Netherlands

Study participating centre
Fysiotherapie Lutmers
Eijkmanlaan 433
Utrecht
Netherlands
3571JR

Study participating centre
Fysiotherapie Plus
Voorburgstraat 14
Rotterdam
Netherlands
3037PM

Study participating centre
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Sponsor information

Organisation
Regieorgaan SIA

Funder(s)

Funder type
Government

Funder Name
Nationaal Regieorgaan Praktijkgericht Onderzoek SIA

Alternative Name(s)
Nationaal Regieorgaan Praktijkgericht Onderzoek, National Board of Practice-Oriented Research SIA, National Board of Practice-Oriented Research, Regieorgaan SIA, NRPO-SIA

Funding Body Type
Government organisation

Funding Body Subtype
National government

Location
Netherlands

Results and Publications

Individual participant data (IPD) sharing plan

The datasets generated and/or analysed during the study will be available upon reasonable request from Arlette Hesselink (Hesselink.a@hsleiden.nl)

IPD sharing plan summary

Available on request

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Participant information sheet	Participant information sheet	11/11/2025	11/11/2025	No	Yes
Study website	Study website	11/11/2025	11/11/2025	No	Yes